**Portable LCD projector**

Service
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# LC6231
# LC7181

## Garbo / Garbo Matchline

# Service Manual

## Contents



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PHILIPS

# 1. Safety guidelines

## IMPORTANT SAFETY NOTICE

**Proper service and repair is important to the safe, reliable operation of all Philips Consumer Electronics Company** Equipment. The service procedures recommended by Philips and described in this service manual are effective methods of performing service operations. Some of these service operations require the use of tools specially designed for the purpose. The special tools should be used when and as recommended.**

**It is important to note that this manual contains various CAUTIONS and NOTICES which should be carefully read in order to minimize the risk of personal injury to service personnel. The possibility exists that improper service methods may damage the equipment. It also is important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. Philips could not possibly know, evaluate and advise the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, Philips has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by Philips must first satisfy himself thoroughly that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.**

** Hereafter throughout this manual, Philips Consumer Electronics Company will be referred to as Philips.

## WARNING

Critical components having special safety characteristics are identified with an $ by the Ref. No. in the parts list and enclosed within a broken line* (where several critical components are grouped in one area) along with the safety symbol ⚠ on the schematics or exploded views.

Use of substitute replacement parts which do not have the same specified safety characteristics may create shock, fire, or other hazards.

Under no circumstances should the original design be modified or altered without written permission from Philips. Philips assumes no liability, express or implied, arising out of any unauthorized modification of design. Servicer assumes all liability.

* Broken Line

# 2. Specifications

| | | LC6231 (Garbo) | LC7181 (Garbo Matchline) |
|---|---|---|---|
| **LCD** | : | 3x 0.65" true 16:9 high-temperature poly-silicon active matrix LCDs | |
| Resolution | : | 854 x 480 | XGA |
| **Brightness** | : | 1000 ANSI lumens | 1100 ANSI lumens |
| Contrast | : | 400:1 | 500:1 |
| **Lamp** | : | 132W | 132W |
| Average lifetime | : | 6000 hours | 3000 hours |
| **Fan noise** | : | 27 dB | 27 dB |
| **Lens** | : | F/1.8 - 2.2 ; f = 28.4 - 34 mm; 1.2x Manual Zoom; Manual Focus.<br>Projection distance 1,1 - 10 m (image diagonal 27.5" - 250") | |

**Input signals**

| | | |
|---|---|---|
| Video | : | NTSC 3.58, 4.43 ; PAL B,G,D,H,I,N,M ; SECAM : S-video/S-VHS (Y/C)<br>Component video input RGB-Y,YCbCr,YPbPr (480p,720p, 1080i) |
| Computer | : | PC and MAC compatible, Multi scan VGA-SXGA<br>Horizontal scan rate: 15 - 108 kHz<br>Vertical refresh rate: 50 - 120 Hz<br>Bandwidth: 140 MHz |
| Plug and play | : | Display Data Channel DDC 1/2B |
| Compatibility | : | Microsoft® Windows® 95/98/ME/2000/XP compatible |

**Input connectors**

| | | |
|---|---|---|
| Video | : | Progressive component and component in R/Pr/Cr,G/Y,B/Pb/Cb (3x RCA)<br>1x S-Video (Y/C DIN)<br>1x CVBS Video (RCA) |
| Computer | : | 1x Data in (15p D-sub) |
| Audio | : | |
| Video | : | Audio L/R (2x RCA) |
| Data | : | 1x Stereo Audio (3.5 mm stereo jack) |
| Mouse | : | PS/2 (Mini Din), USB (type A) |

| | | |
|---|---|---|
| **Features** | : | Picture in Picture (Matchline only)<br>SmartSetTM automatic image quality optimisation<br>SmartSaveTM auto-standby mode to increase effective lamp usage<br>Colour Tracking™<br>Digital Keystone correction, Digital Zoom and -Freeze<br>Fitscreen<br>6W speaker |
| **Dimensions** | : | 235 x 335 x 108 mm (9.2" x 13.2" x 4.2") (WxDxH) |
| **Net weight** | : | 3.7 kg; 8.1 lbs |

**Power consumption**

| | | |
|---|---|---|
| Operating voltage | : | 100 - 240V, 50/60 Hz |
| Operation | : | 170W |
| Standby | : | 5W |

**Temperature range**

| | | |
|---|---|---|
| Operational | : | +5 to +35 °C (+41 to +95 °F) |
| Storage | : | -25 to +70 °C (-13 to +158 °F) |
| **EMC approbation** | : | Class B |

| | | |
|---|---|---|
| **Package** | : | Pronto NEO<br>Compact remote control<br>Power cord<br>VGA cable (2m)<br>Audio/Video cable (2m)<br>Scart/RCA Component adapter<br>S-video cable (2m)<br>Scart adapter (scart to RCA audio/video)*<br>Lenscap<br>Printed & CD-ROM User Guide (UK, D, F, E, PT, NL, I). Chinese version printed in region.<br>Quick Setup Card (UK, D, F, E, PT, NL, I)<br>Warranty card + envelopes<br>Wallpaper CD-ROM |
| **Optional accessories** | : | 132W replacement lamp (LCA3116/00)<br>150W replacement lamp (LCA3118/00)<br>Softbag (LCA 1120/00)<br>Ceiling mount (LCA2211/00)<br>VGA extension cable, 15 metres (LCA5300/00) |
| **Executions** | : | LC6231/17 USA version LC7181/17 USA version<br>LC6231/40 RoW version LC7181/40 RoW version<br>LC6231/45 UK version LC7181/45 UK version |

* : depending on regional requirement

| Image diagonal size | | Projection distance | | | |
|---|---|---|---|---|---|
| | | Tele zoom | | Wide zoom | |
| [inch] | [metres] | [inch] | [metres] | [inch] | [metres] |
| 40 | 1,0 | 75 | 1,9 | 62 | 1,6 |
| 60 | 1,5 | 114 | 2,9 | 93 | 2,4 |
| 70 | 1,8 | 133 | 3,4 | 1086 | 2,7 |
| 80 | 2,0 | 153 | 3,9 | 123 | 3,1 |
| 100 | 2,5 | 191 | 4,8 | 1552 | 3,9 |
| 150 | 3,8 | 286 | 7,3 | 233 | 5,9 |
| 200 | 5,1 | 381 | 9,7 | 310 | 7,9 |
| 250 | 6,4 | 477 | 12,8 | 388 | 9,8 |

# 3. Warnings & Notes

## Warnings

**1.** Safety regulations require that the unit should be returned in its original condition and that components identical to the original components are used. The safety components are indicated by the symbol ⚠ or $.

**2.** **ESD**

All ICs and many other semiconductors are sensitive to electrostatic discharges (ESD). Careless handling during repair can drastically shorten the life. Make sure that during repair you are connected by a pulse band with resistance to the same potential as the earth of the unit. Keep components and tools also at this same potential.

**3.** When repairing a unit, always connect it to the mains voltage via an isolating transformer.
The lamp supply and the lamp housing are not mains isolated.

**4.** Be careful when taking measurements in the high-voltage section.

**5.** Never replace modules or other components while the unit is switched on.

**6.** When making settings, use plastic rather than metal tools. This will prevent any short circuits and the danger of a circuit becoming unstable.

**7.** After repair the wiring should be fastened once more in the cable clamps for this purpose.

**8.** In order to prevent measuring errors, the heat sinks should not be used as reference points for measurements.

**9.** The Lamp house and the lamp get hot during operation. Please ensure that they are cooled down before servicing.

**10.** The lighthouse (optical part) is extremely sensitive to dust. This part should only be opened in a dust-free environment (class 100 according to the US federal standard 209).

**11.** Safety regulations require that safety goggles should be worn when servicing the unit in open view of the lamp.

## Notes

**1.** The direct voltages and oscillograms should be measured with regard to earth (4), or hot earth (5) as this is called.

**2.** The semiconductors indicated in the circuit diagram and in the parts lists are completely interchangeable per position with the semiconductors in the unit, irrespective of the type indication on these semiconductors.

# 4. Mechanical instructions

## 4.1 Opening the cabinet

1. Remove the focus ring (A) and the zoom ring (B) by pulling them off (Fig. 1). Pulling off the zoom ring may require some force.


Fig. 1

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2. Pull off the front cover (C) by pulling it upward (Fig. 2). Pulling can best be done by using the opening of the lens.


Fig. 2

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3. Remove the 4 screws (D) holing the top cover (Fig. 3). If the 4 screws are removed, the top cover can be lifted off. Please be careful not to pull of the cable to the keyboard.

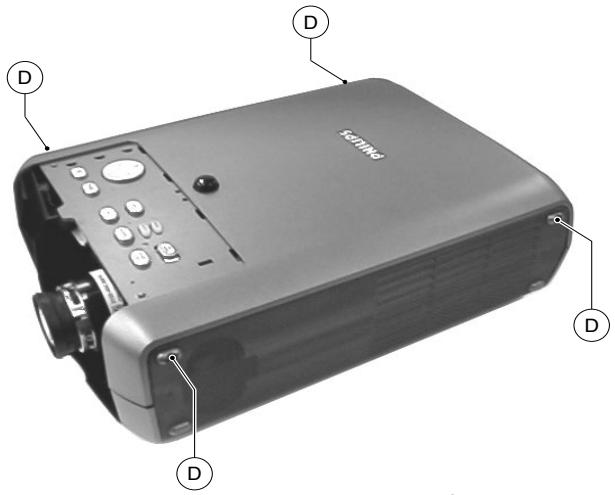


Fig. 3

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4. By putting the top cover to the side, the set can still be operated (Fig. 4). Be careful not to damage connector E. By pulling the flatfoil cable from connector E the topcover can be removed completely.

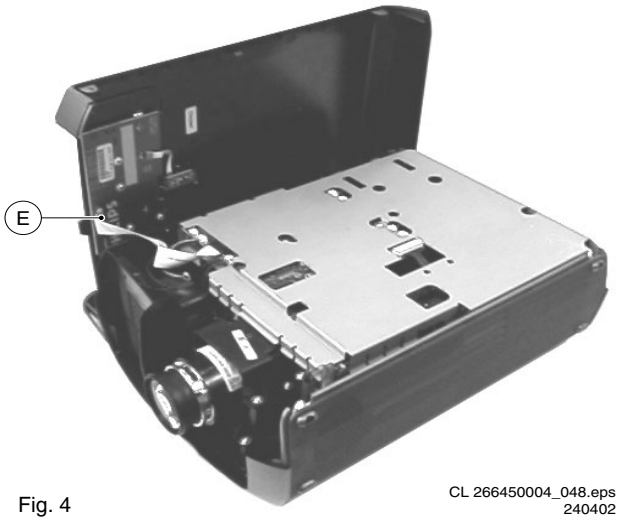


Fig. 4

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5. Remove the 6 screws “F” holding the top shield (Fig. 5). Then remove the 3 screws “G” and the 2 screws “H” (Fig. 6). Now the top shield can be removed.

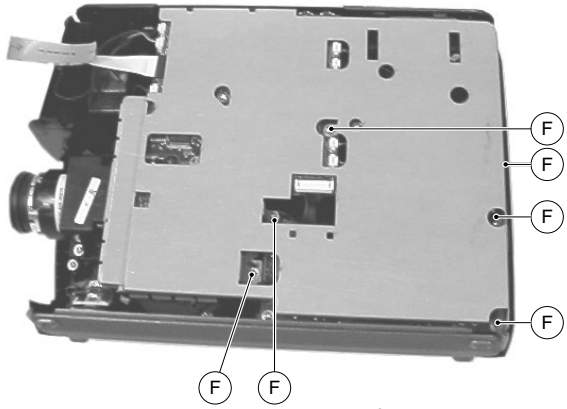


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Fig. 5

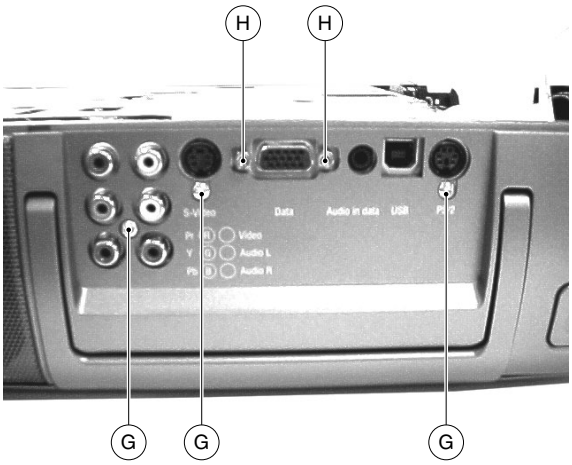


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Fig. 6

### 4.2 Panel removal and service position

1. Remove screw “I” and connectors “J” (Fig. 7). Now the SSB (Small Signal Board) can be removed. The SSB is plugged onto the DRB (Drive Board).

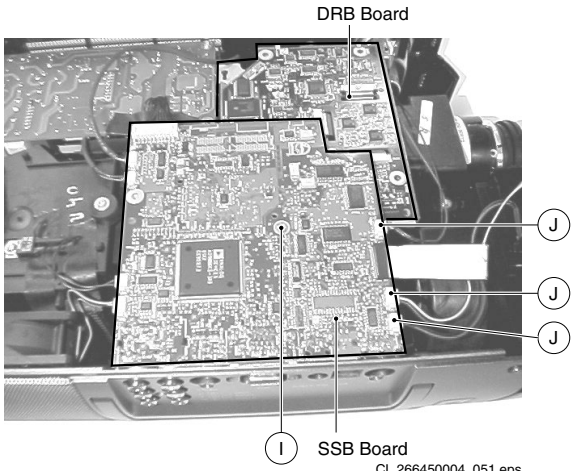


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Fig. 7

2. Remove screw “K” and connectors “L” (Fig. 8). Nor the DRB (Drive Boards) can be removed.

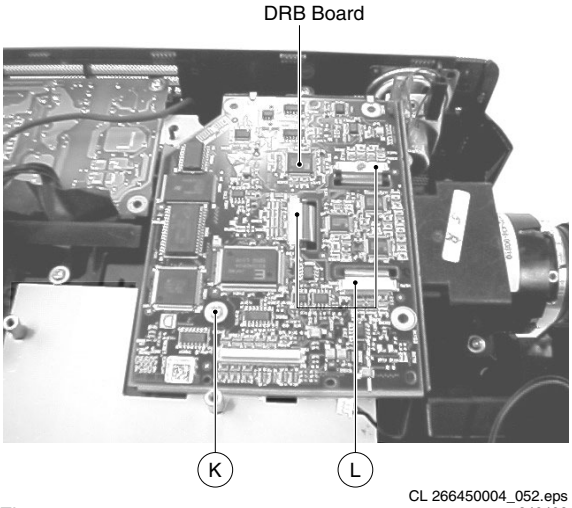


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Fig. 8

3. Remove screw “L” (Fig. 9). Now the bottom shield can be removed.

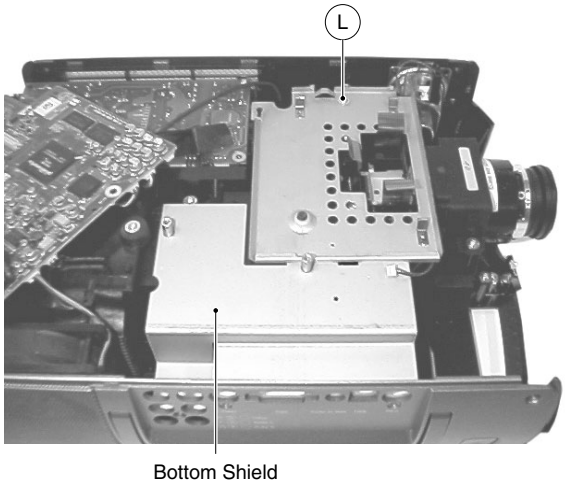


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Fig. 9

4 Remove the 4 screws “M” (Fig. 10). Now the side cover can be removed.

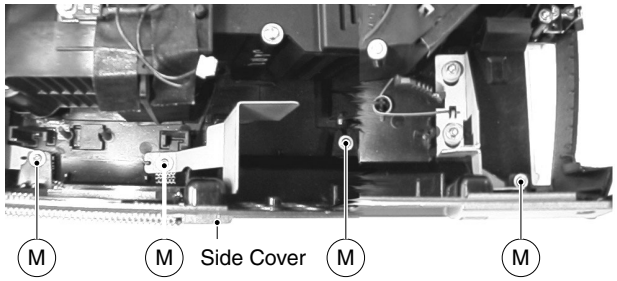


Fig. 10

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5. Remove screws “N” (Fig. 11). After lifting the fan bracket, the filter holder and dust filter can be removed.

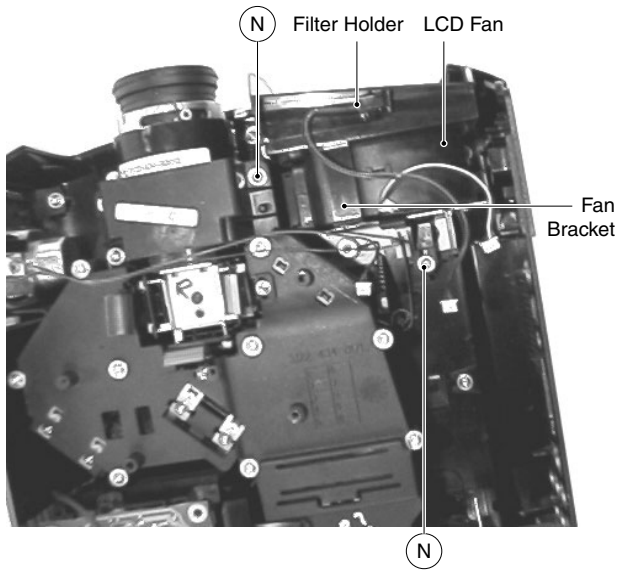


Fig. 11

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6. To operate the projector in this situation, connect the SSB and DRB together again, and connect the top-cover, LCD fan and dust filter switch to the SSB. Put some insulation under the SSB and DRB board. Now connect the LCD’s to the DRB board by using extension cables (312243540400). (Fig. 12)

**Do not operate the projector like this for a longer time, as the LCD’s will be damaged when the cooling is not installed.**

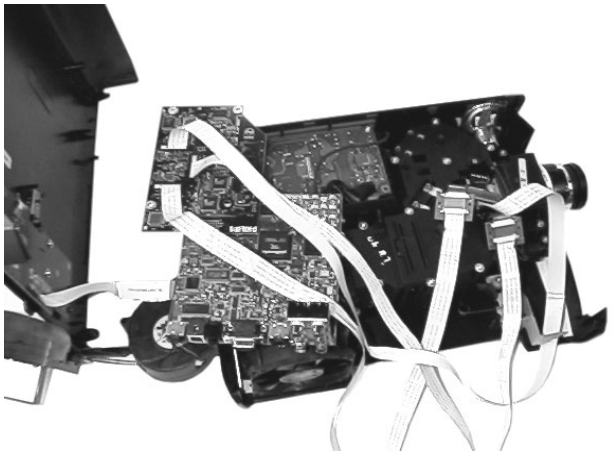

Fig. 12

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### 4.3 Engine and power supply removal

1. Remove the 3 screws “O” to remove the engine (Fig. 13).

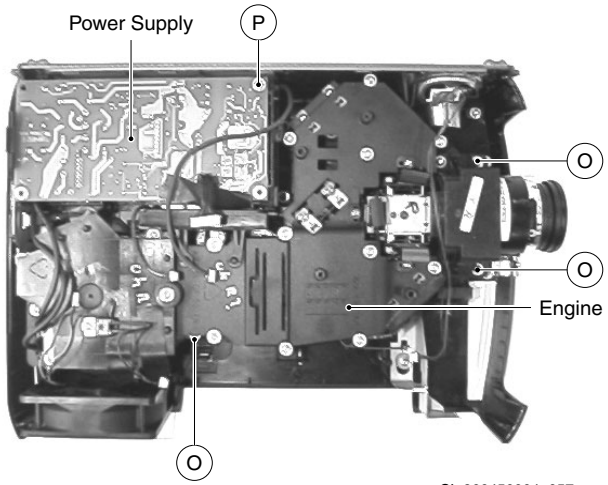


Fig. 13

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2. Remove screws “P” to remove the Power supply (Fig. 13).

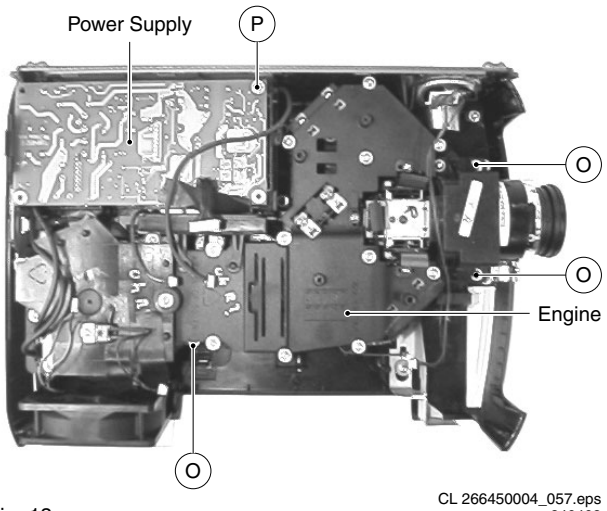


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Fig. 13

3. Remove the 2 screws “Q” to remove the lamp supply (Fig. 14).


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Fig. 14

### 4.4 Notes when mounting back together

1. Mounting position of PCS fan (See Fig. 15).

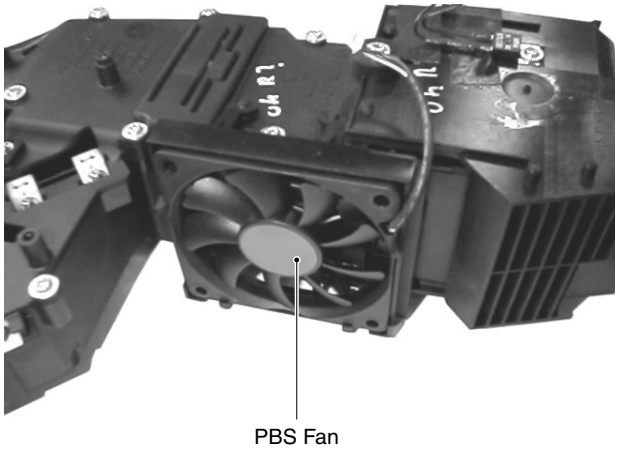


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Fig. 15

2. Mounting of air guide: First put the bottom pin into hole “R”, and then click the top pin into hole “S”. (Fig. 16).

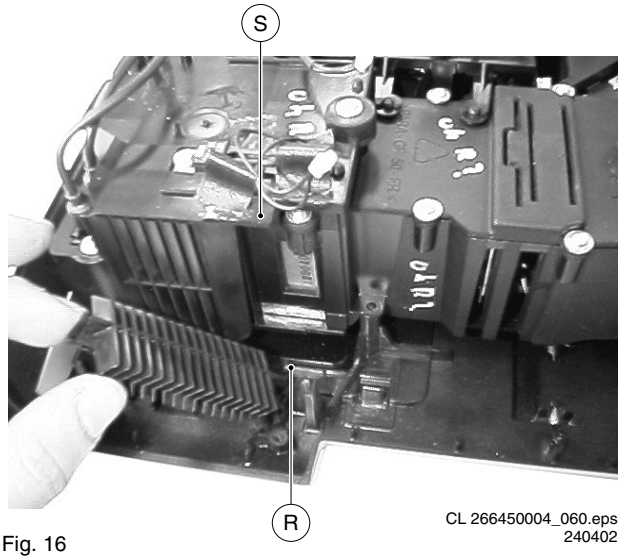


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Fig. 16

3. Mounting position of lamp fan (See fig 17).

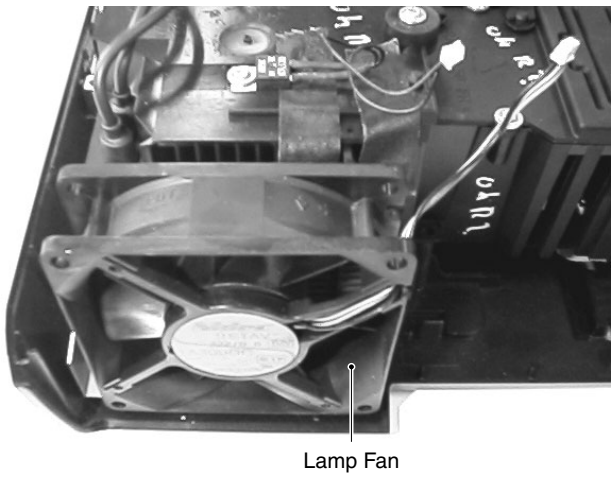


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Fig. 17

4. Mounting position of earth bracket. (See Fig. 18)

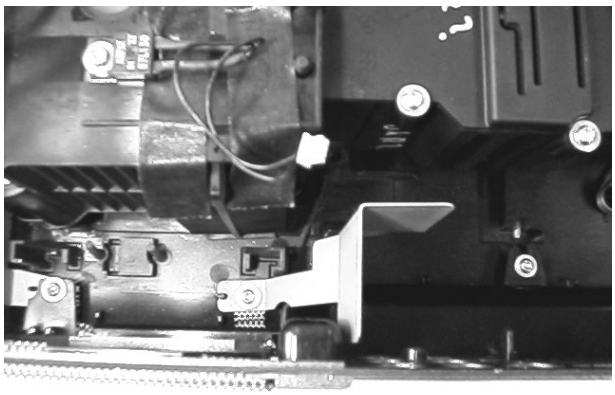

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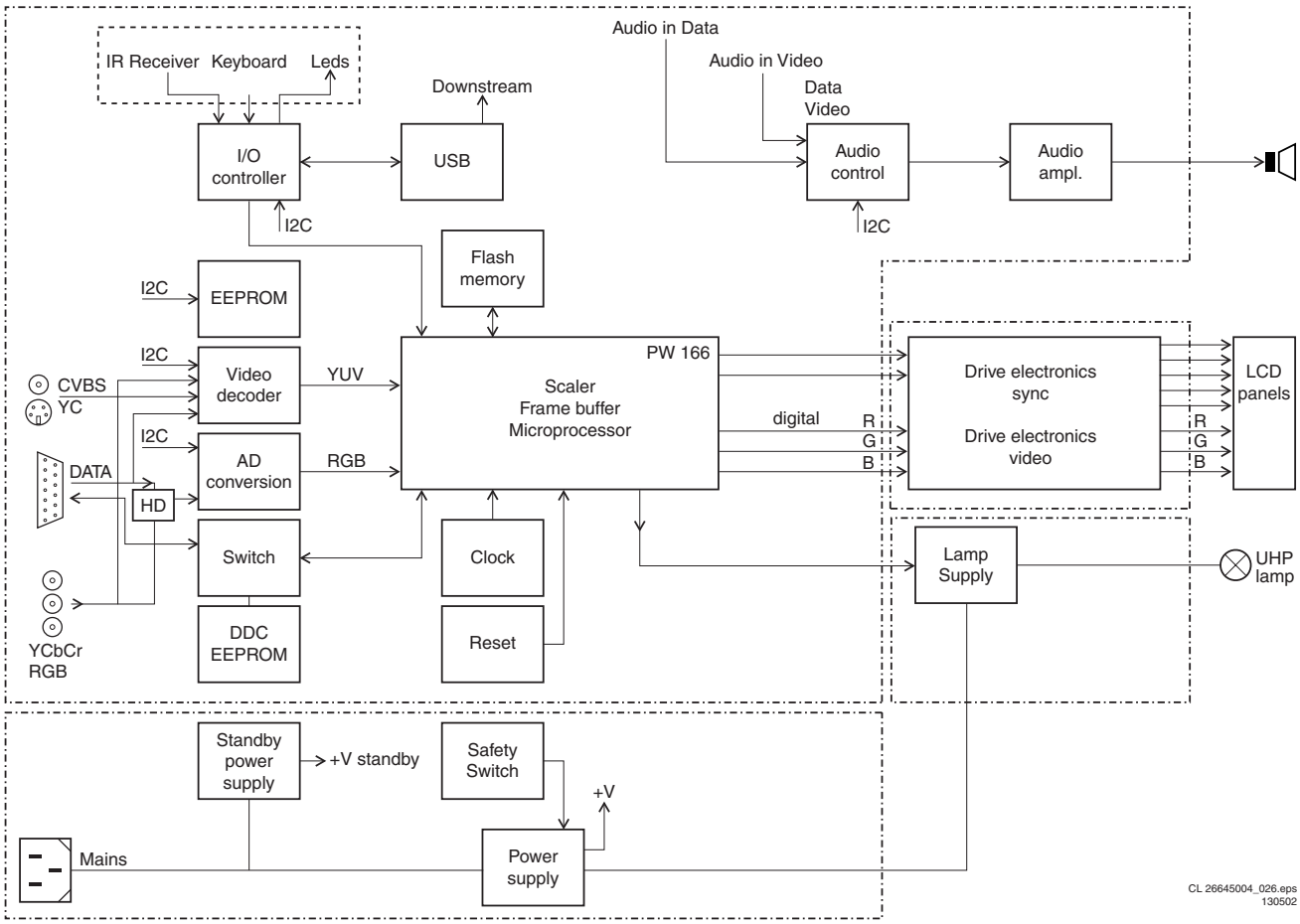
Fig. 18

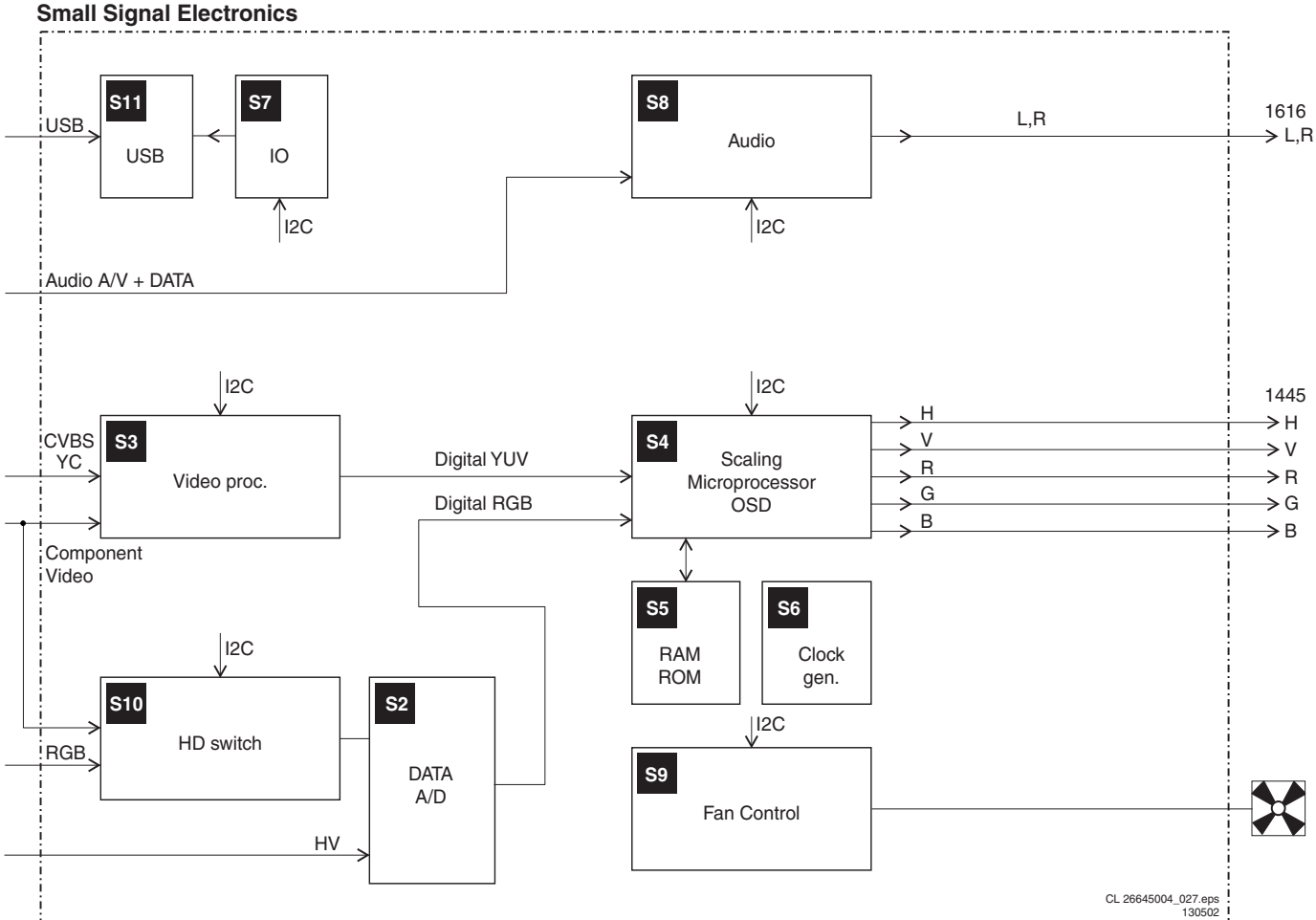
5. If after a repair the fan’s go to high speed and the lamp switches off immediately, then check the filter door switch mounting.

# 5. Block diagrams & Wiring diagram

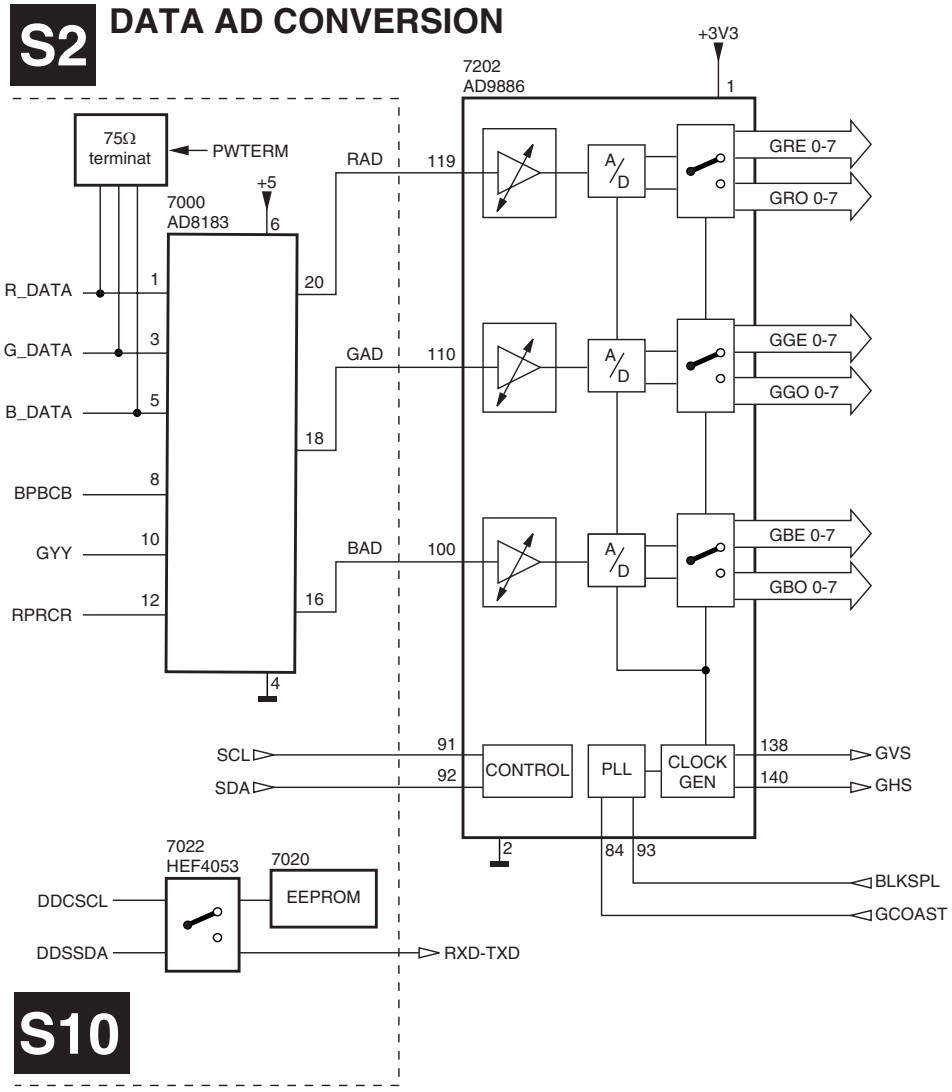
**BLOCK DIAGRAM**




**Small Signal Electronics**



## S2 DATA AD CONVERSION

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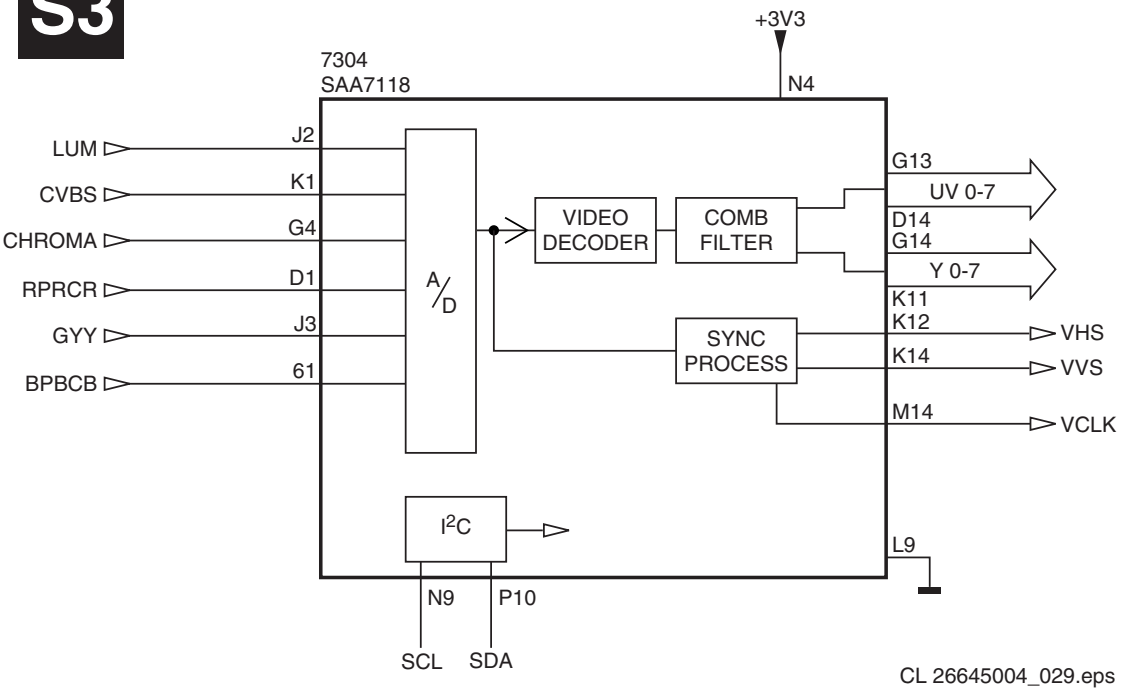
## S3 VIDEO PROCESSING

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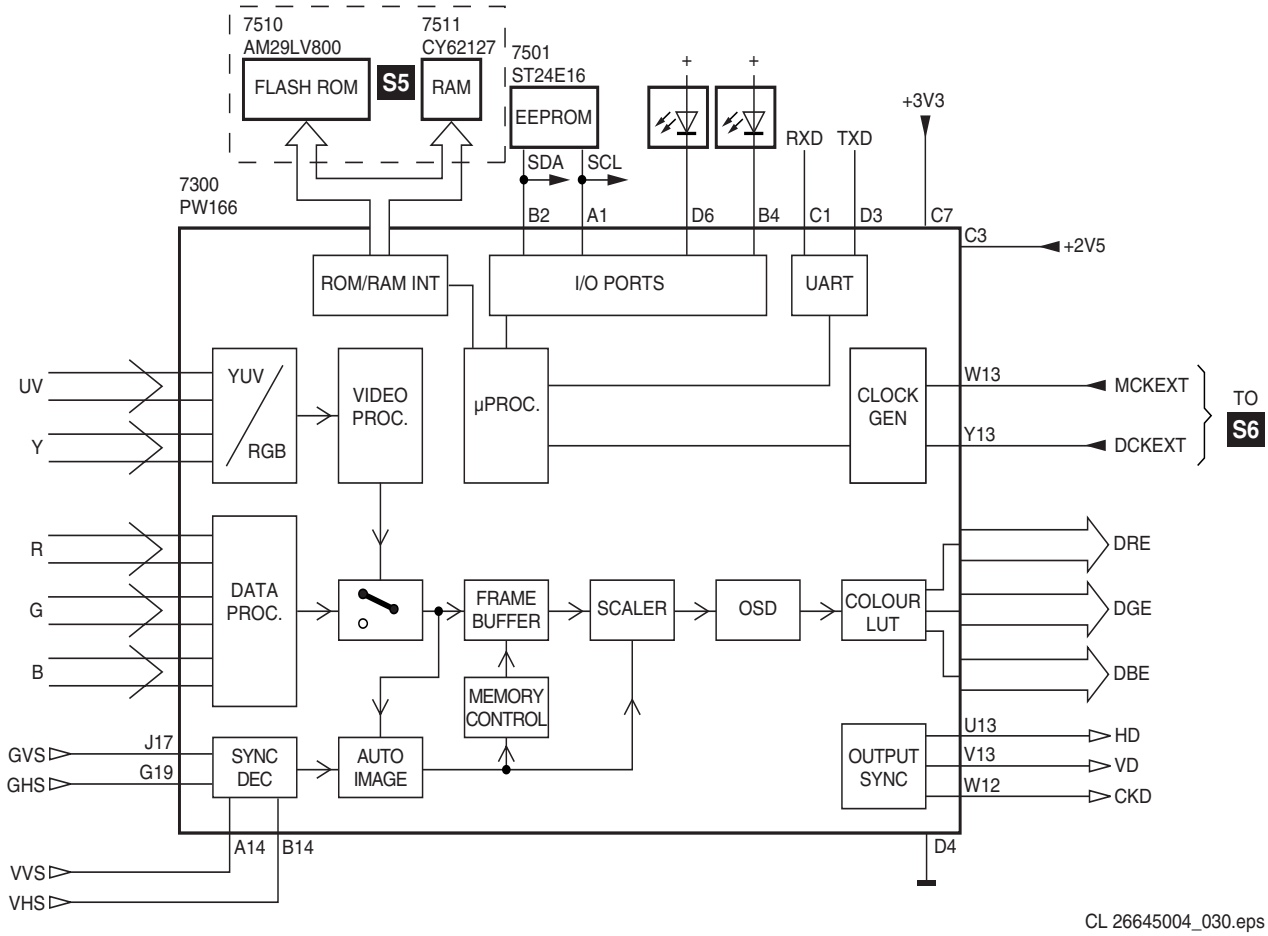
# S4 SCALER / FRAMEBUFFER / MICROPROCESSOR

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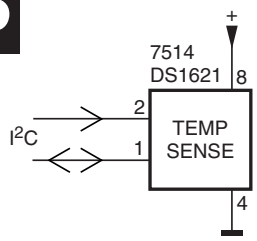
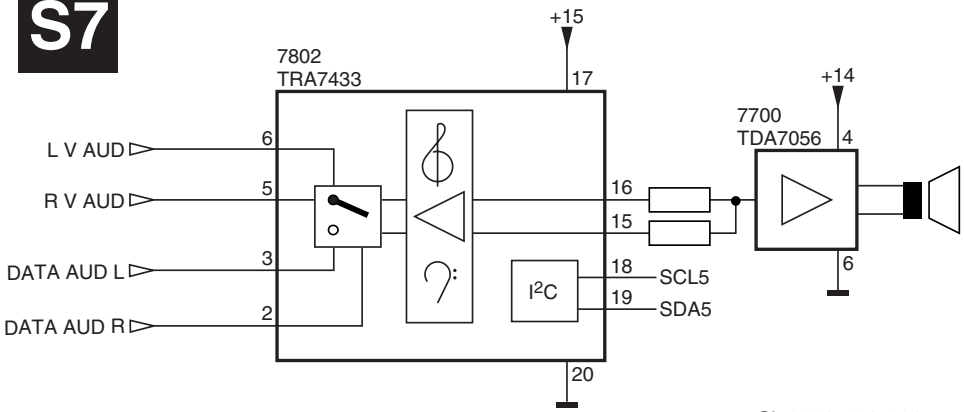
# S5




AUDIO PROCESSING

# S7

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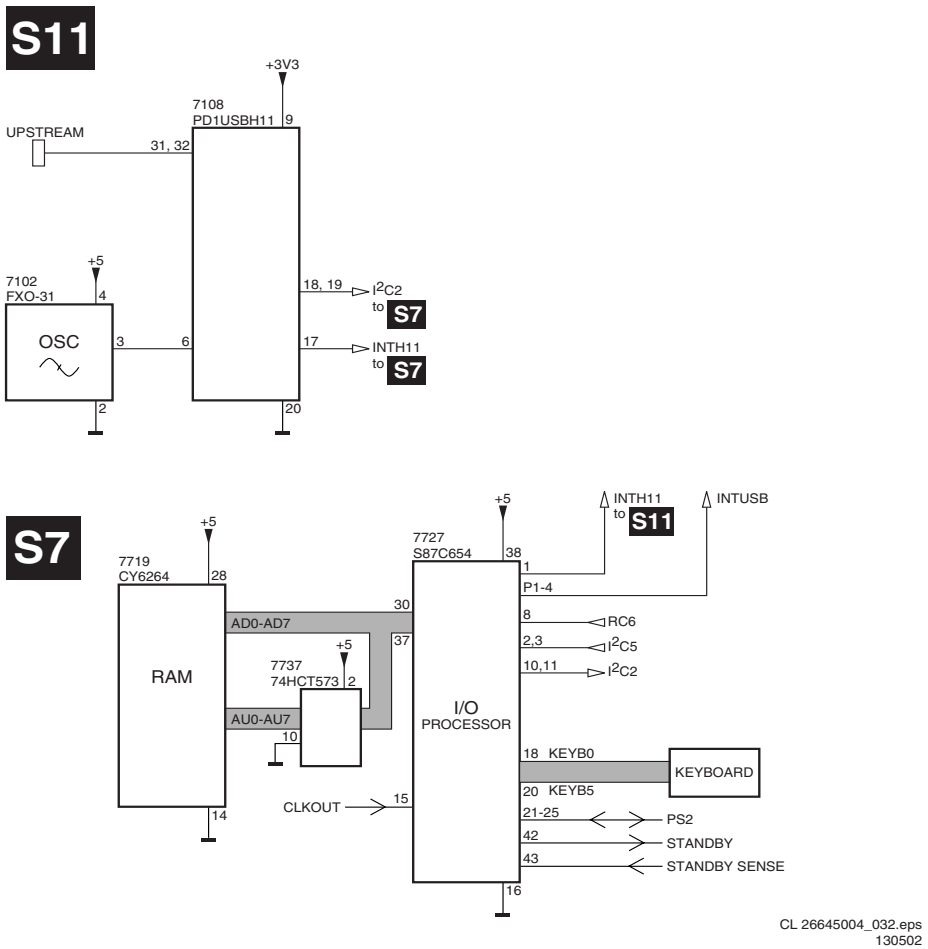
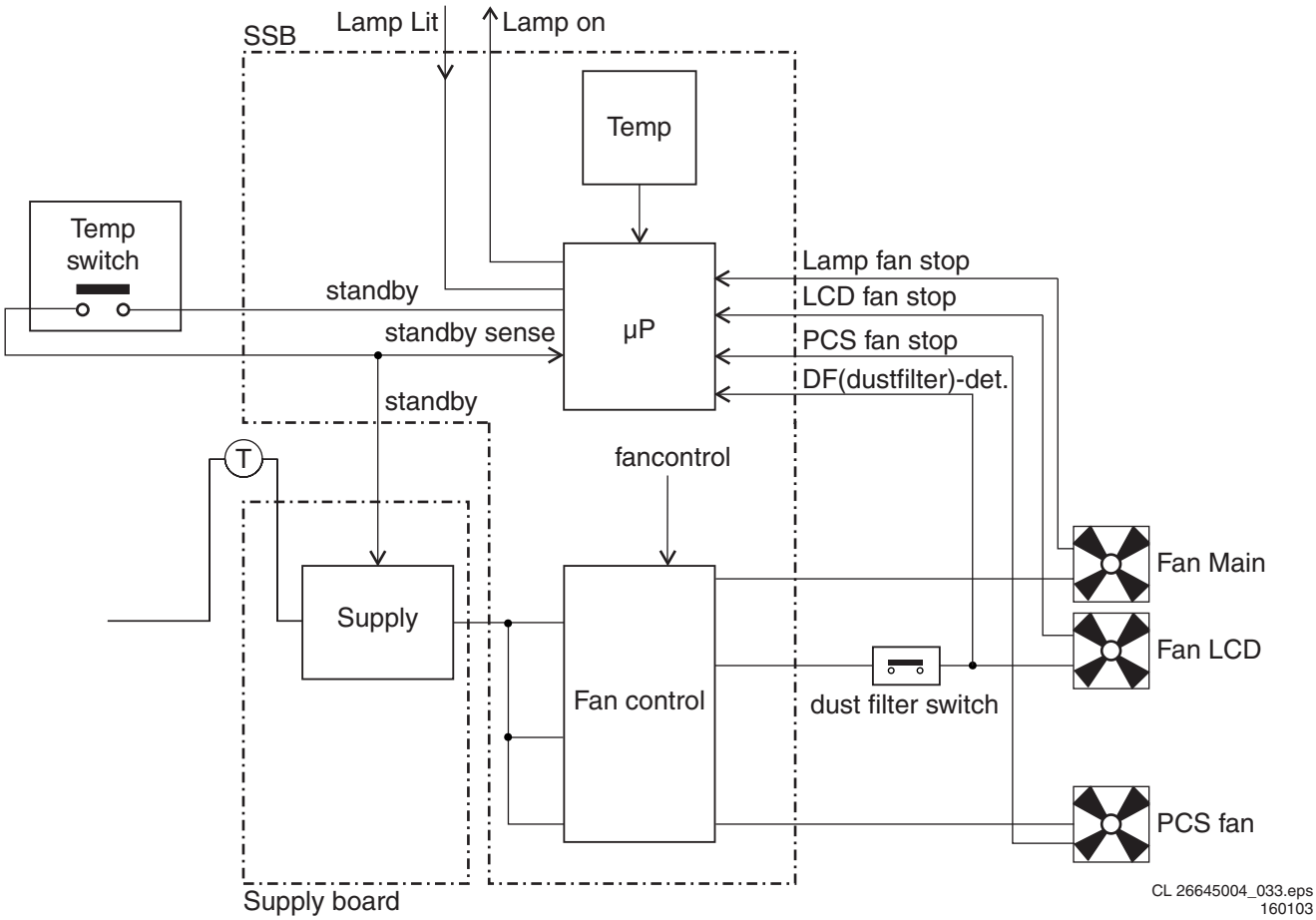
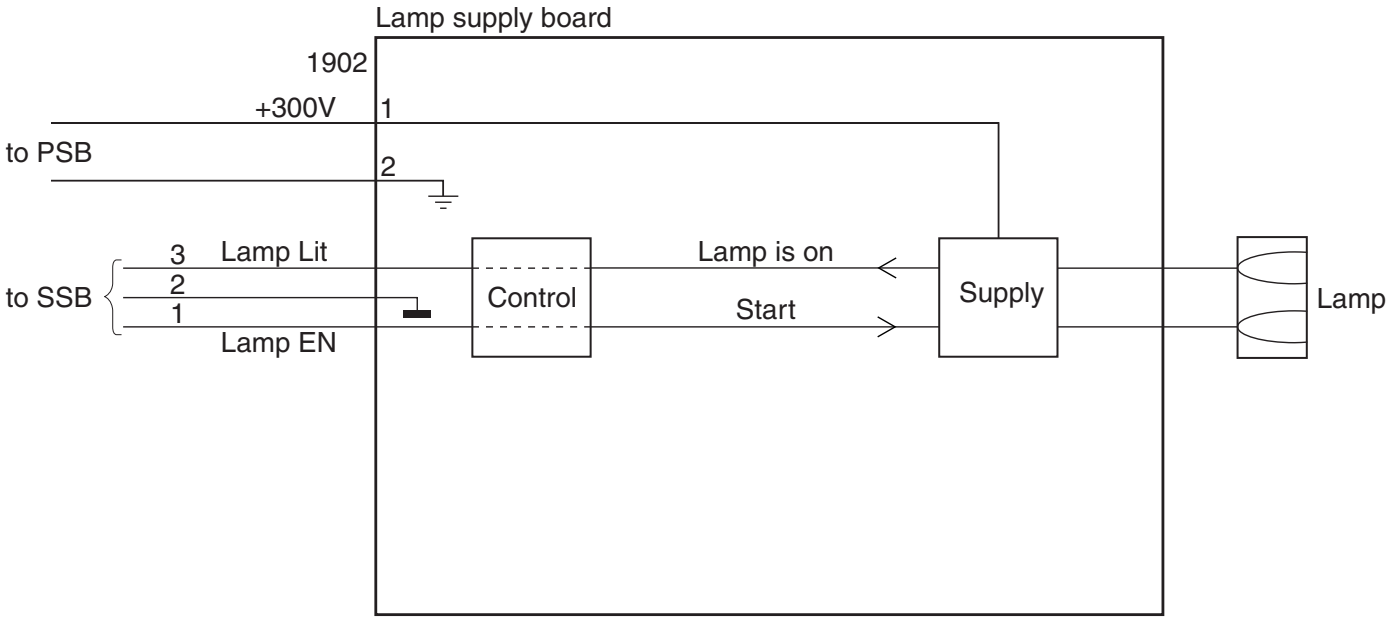



## PROTECTION CIRCUITS



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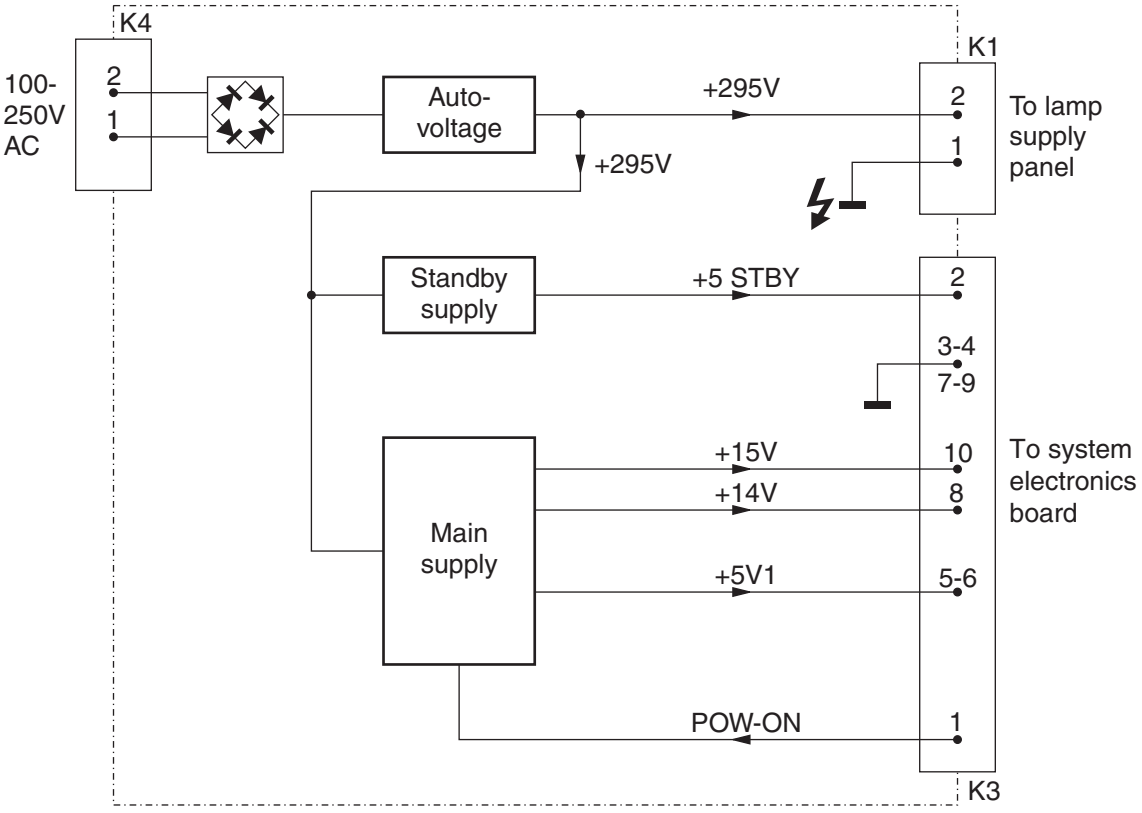
## POWER SUPPLY BOARD

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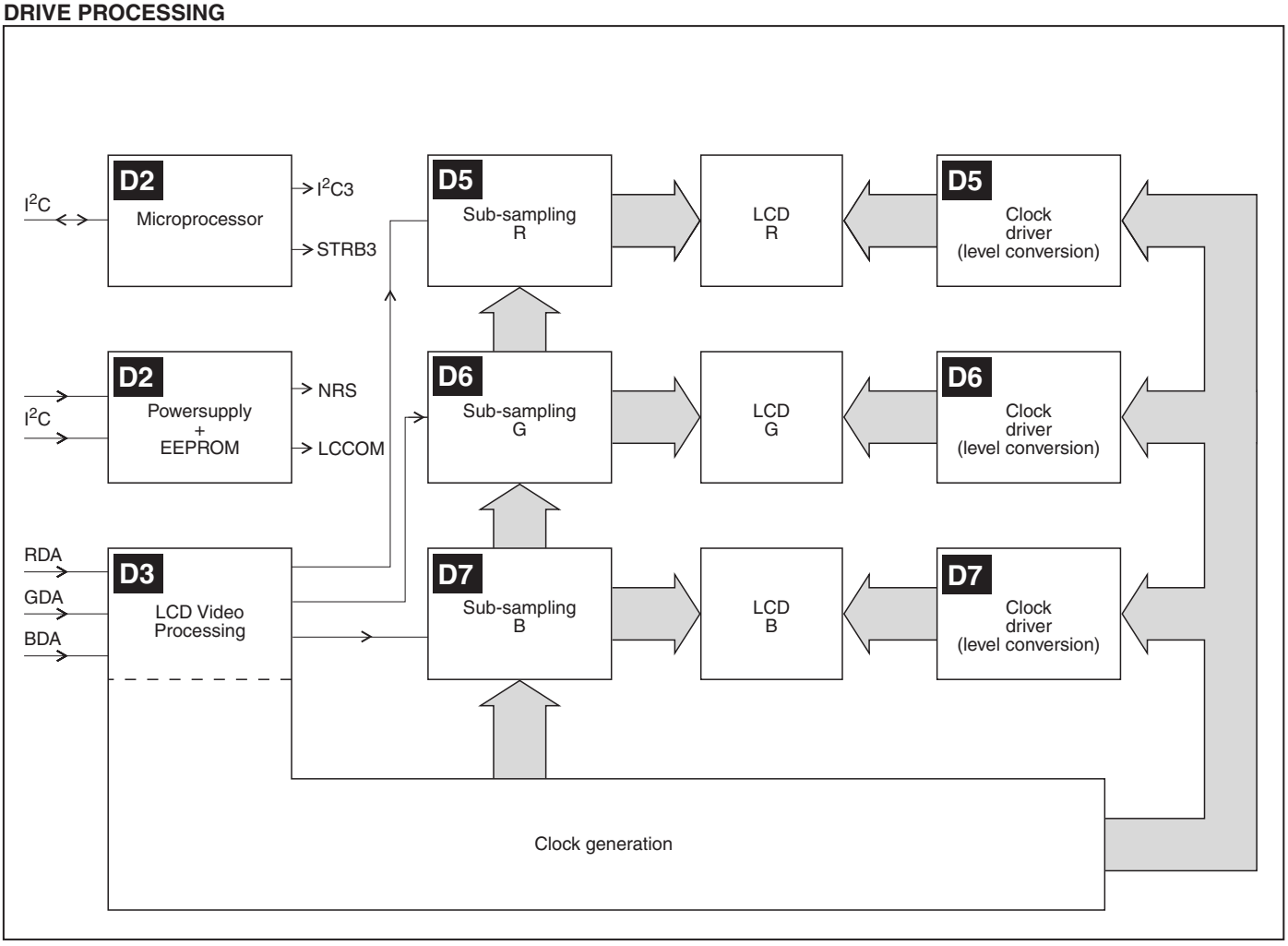
## DRIVE PROCESSING

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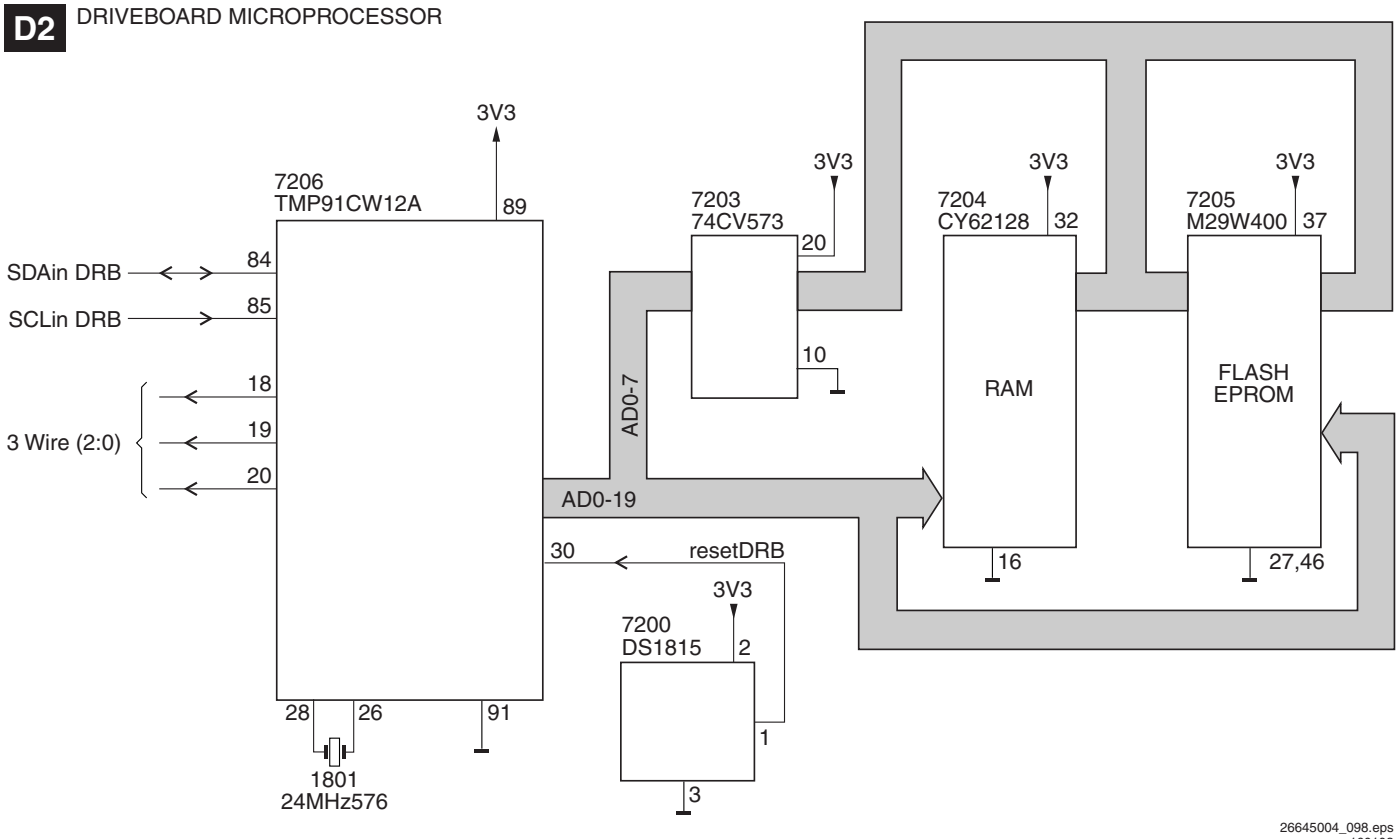
## D2 DRIVEBOARD MICROPROCESSOR

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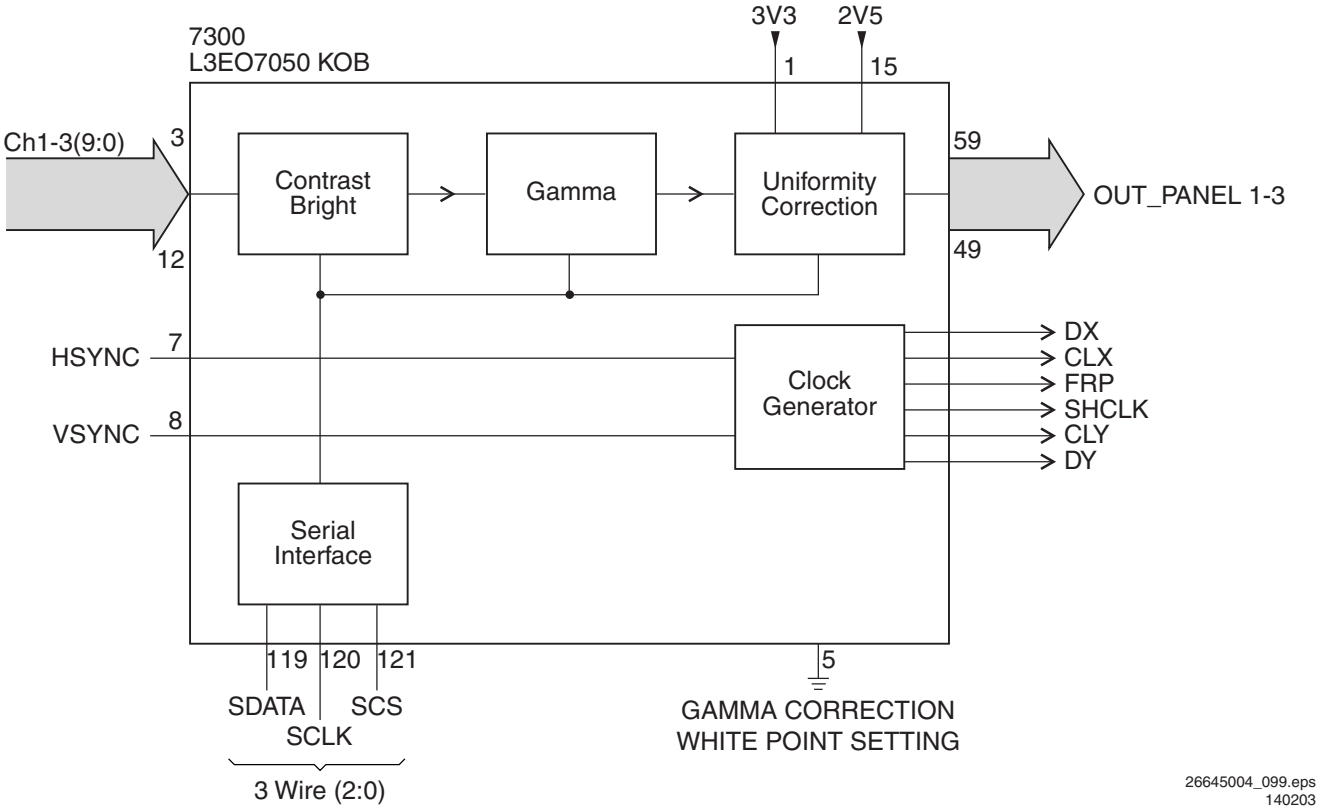
**D3**

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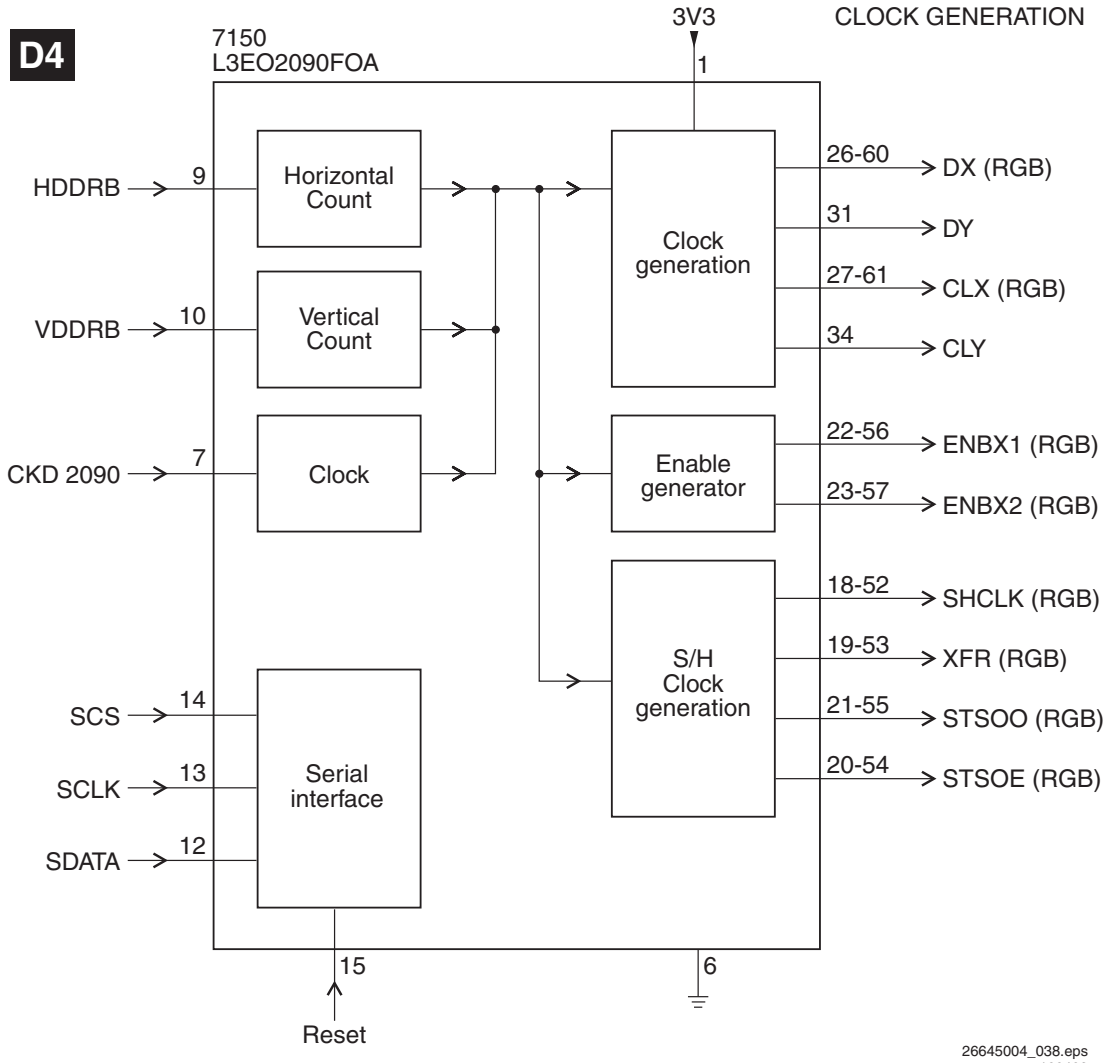


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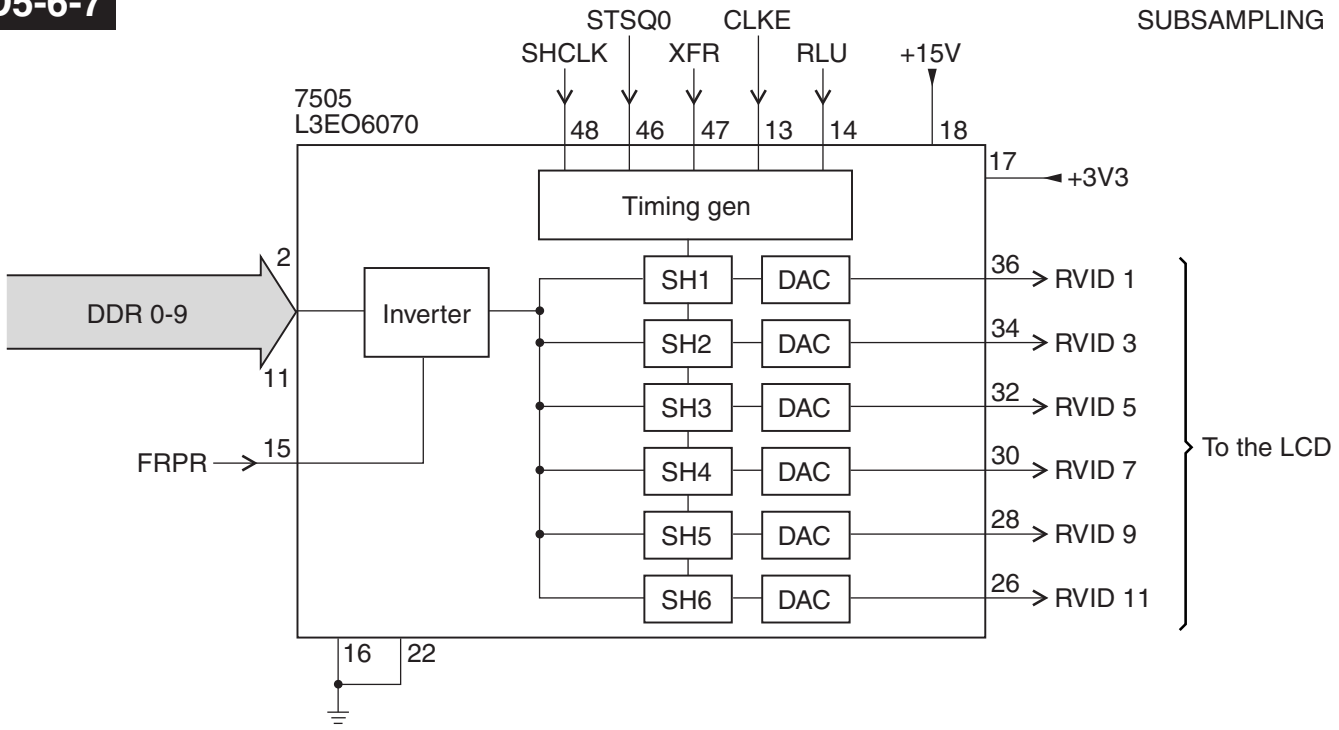
## D5-6-7

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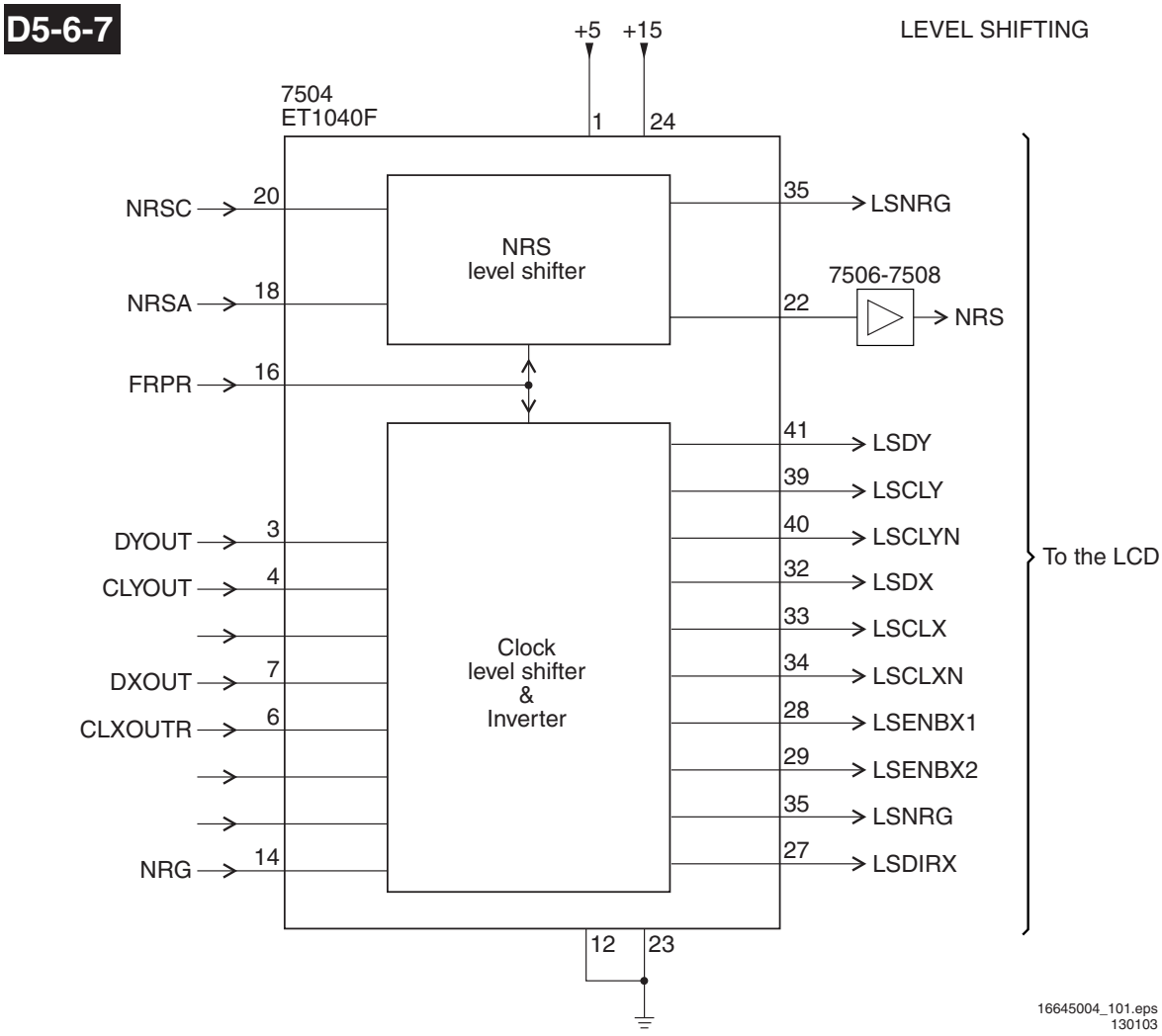
## D5-6-7

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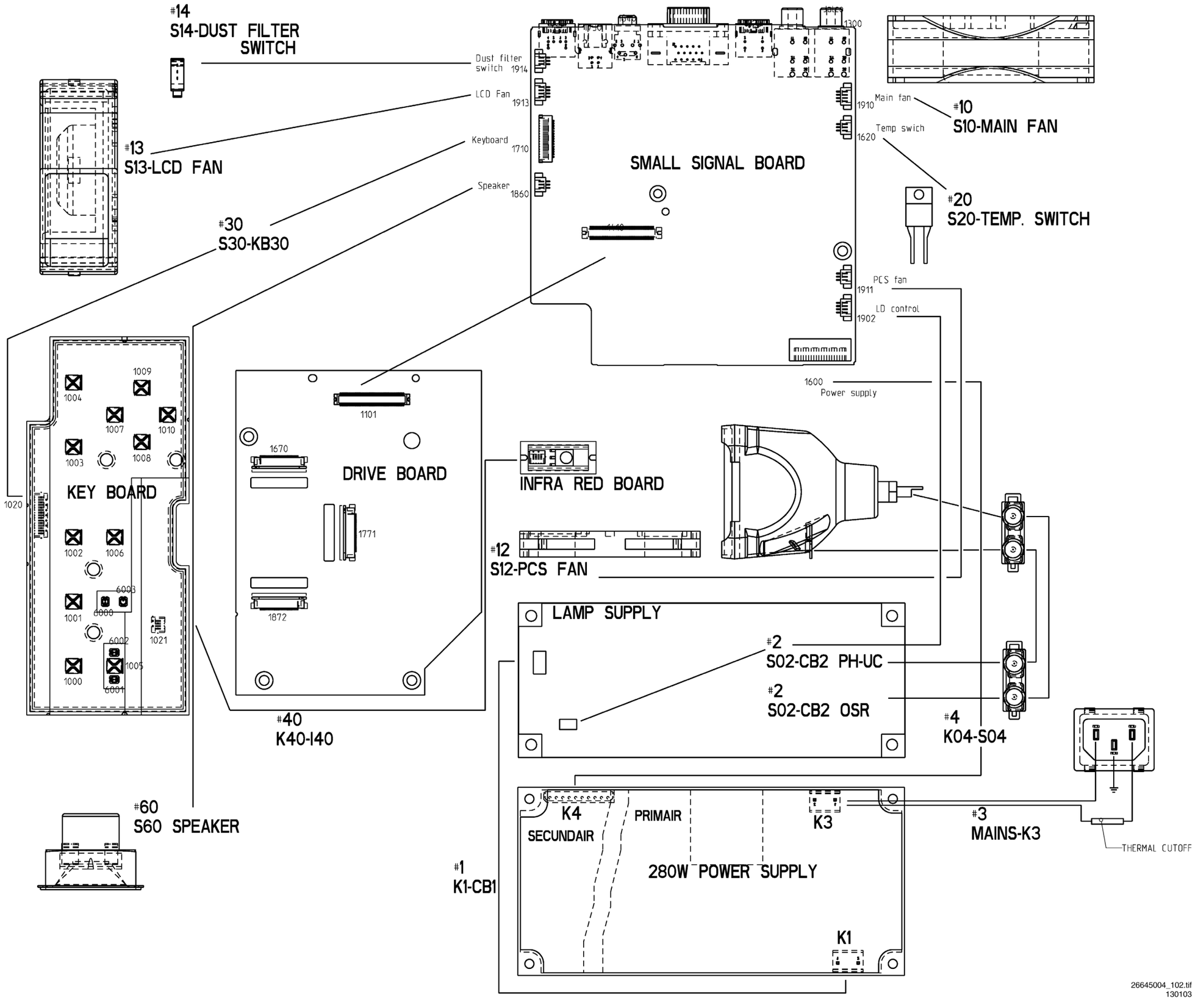
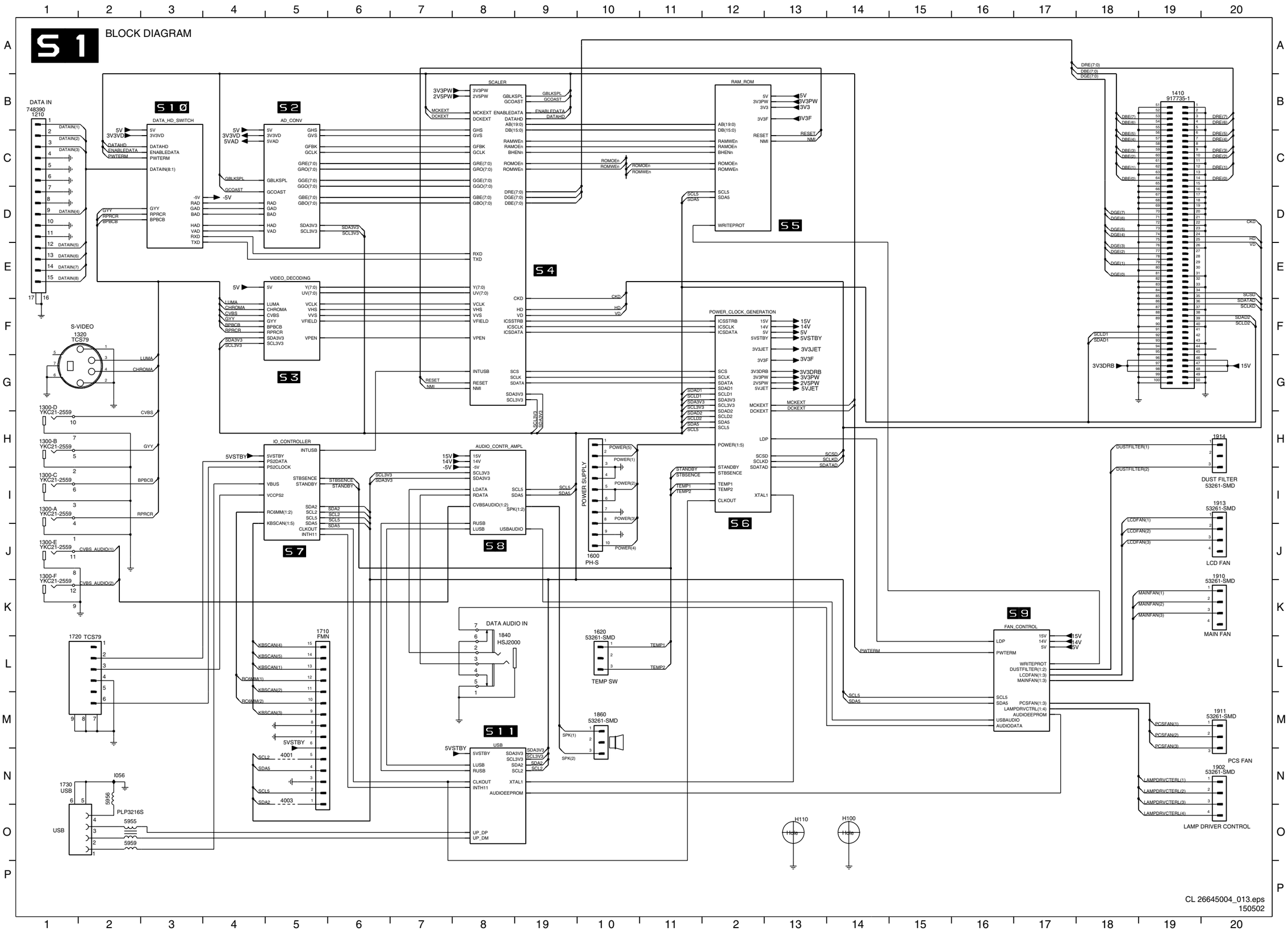
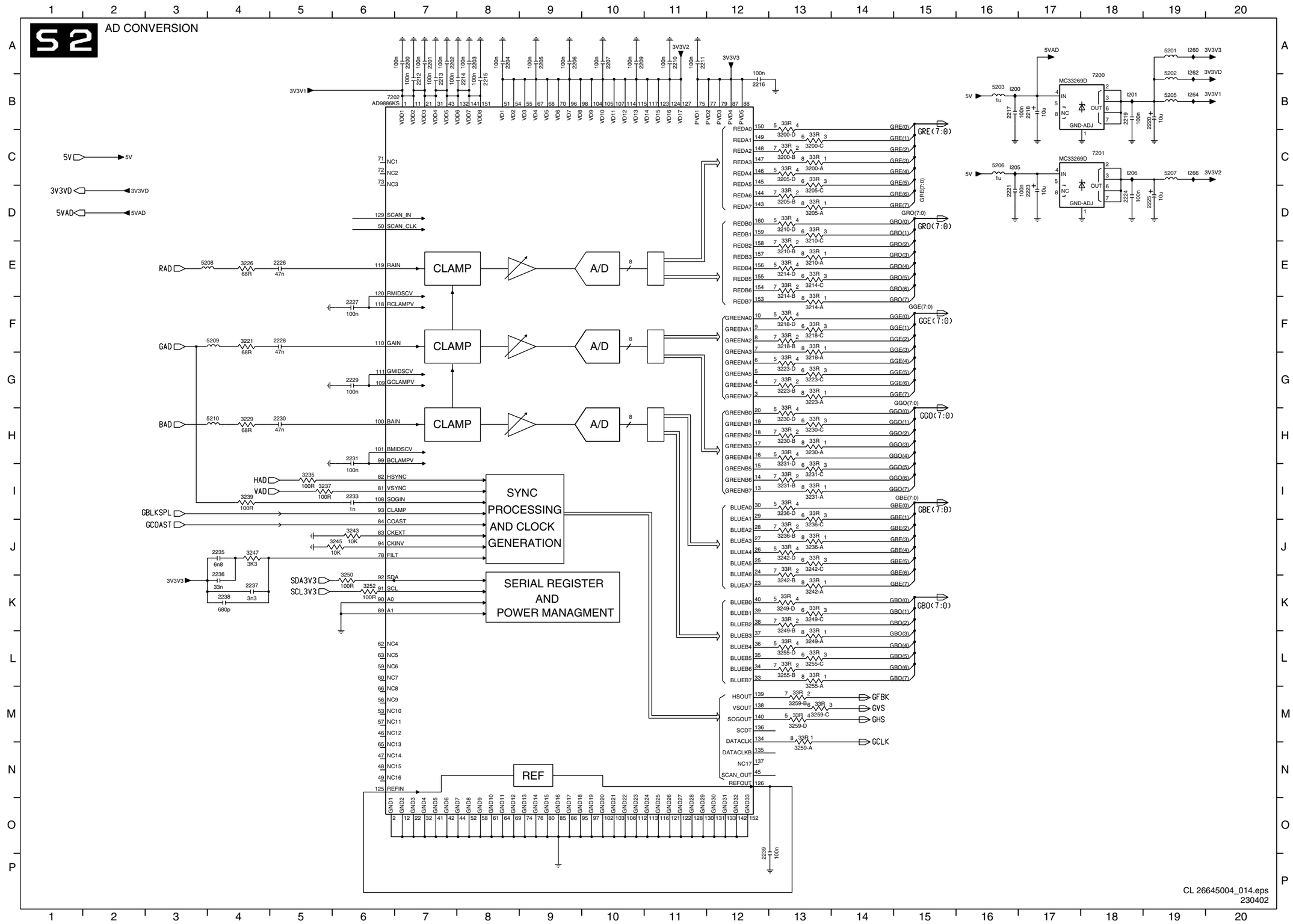

#14
S14-DUST FILTER SWITCH
Dust filter switch 1914
LCD Fan 1913
#13
S13-LCD FAN
Keyboard 1710
Speaker 1860
#30
S30-KB30
SMALL SIGNAL BOARD
1300
1910 Main fan
#10
S10-MAIN FAN
Temp swich 1620
#20
S20-TEMP. SWITCH
1911 PCS fan
1902 LD control
1600 Power supply
1009
1004
1007
1010
1003
1008
KEY BOARD
1020
1002
1006
6003
6000
1001
1021
6002
1005
1000
6001
1101
1670
DRIVE BOARD
1771
1872
INFRA RED BOARD
#12
S12-PCS FAN
LAMP SUPPLY
#2
S02-CB2 PH-UC
#2
S02-CB2 OSR
#4
K04-S04
#40
K40-I40
#60
S60 SPEAKER
K4
PRIMAIR
SECUNDAIR
K3
280W POWER SUPPLY
K1
#1
K1-CB1
#3
MAINS-K3
THERMAL CUTOFF
26645004_102.tif
130103

# 6. Diagrams & PWB layouts



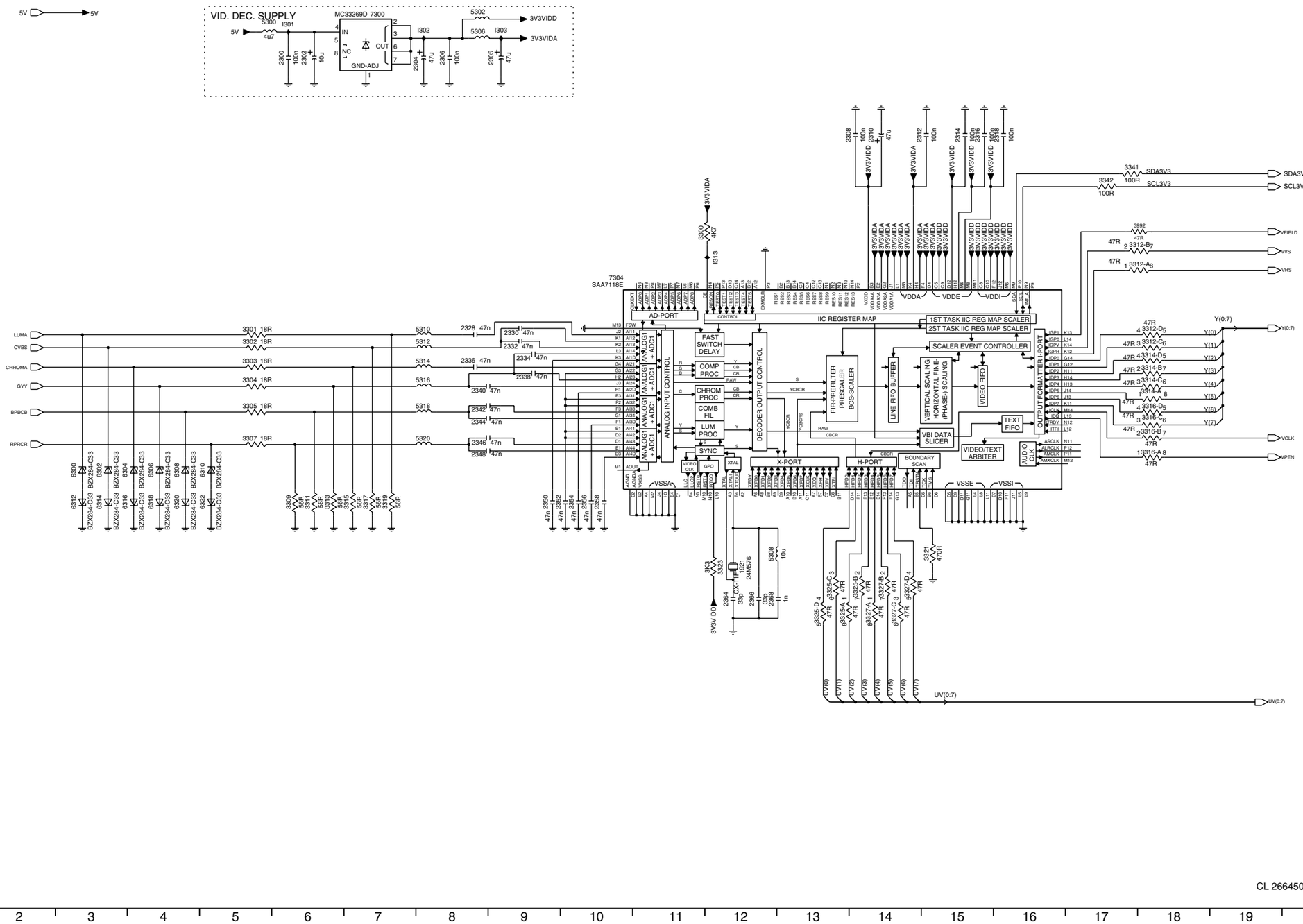



| | |
|---|---|
| 1210 | D1 |
| 1300-A | J1 |
| 1300-B | H1 |
| 1300-C | I1 |
| 1300-D | H1 |
| 1300-E | J1 |
| 1300-F | K1 |
| 1320 | G2 |
| 1410 | E19 |
| 1580-A | D16 |
| 1600 | I10 |
| 1620 | L10 |
| 1710 | M5 |
| 1720 | L2 |
| 1730 | O2 |
| 1840 | L8 |
| 1860 | M10 |
| 1902 | N20 |
| 1910 | K20 |
| 1911 | M20 |
| 1913 | J20 |
| 1914 | H20 |
| 4001 | N5 |
| 4003 | O5 |
| 4100 | I4 |
| 5000 | B16 |
| 5002 | C16 |
| 5004 | D18 |
| 5006 | M4 |
| 5008 | M5 |
| 5010 | N3 |
| 5100 | D11 |
| 5102 | E11 |
| 5104 | E16 |
| 5106 | F3 |
| 5108 | F8 |
| 5110 | G4 |
| 5112 | H11 |
| 5114 | L2 |
| 5116 | L5 |
| 5955 | O2 |
| 5956 | N2 |
| 5959 | O2 |




| | | | | |
|---|---|---|---|---|
| 2200 | A7 | 3237 | I5 | |
| 2201 | A7 | 3239 | I4 | |
| 2202 | A7 | 3242-A | K13 | |
| 2203 | A8 | 3242-B | K13 | |
| 2204 | A8 | 3242-C | J13 | |
| 2205 | A9 | 3242-D | J13 | |
| 2206 | A9 | 3243 | J6 | |
| 2207 | A10 | 3245 | J6 | |
| 2209 | A10 | 3247 | J4 | |
| 2210 | A11 | 3249-A | L13 | |
| 2211 | A11 | 3249-B | K13 | |
| 2212 | B7 | 3249-C | K13 | |
| 2213 | B7 | 3249-D | K13 | |
| 2214 | B7 | 3250 | K6 | |
| 2215 | B8 | 3252 | K6 | |
| 2216 | B12 | 3255-A | L13 | |
| 2217 | B16 | 3255-B | L13 | |
| 2218 | B17 | 3255-C | L13 | |
| 2219 | B18 | 3255-D | L13 | |
| 2220 | B19 | 3259-A | N13 | |
| 2221 | D16 | 3259-B | M13 | |
| 2223 | D17 | 3259-C | M13 | |
| 2224 | D18 | 3259-D | M13 | |
| 2225 | D19 | 5201 | A19 | |
| 2226 | E5 | 5202 | B19 | |
| 2227 | F6 | 5203 | B16 | |
| 2228 | F5 | 5205 | B19 | |
| 2229 | G6 | 5206 | C16 | |
| 2230 | H5 | 5207 | C19 | |
| 2231 | I6 | 5208 | E3 | |
| 2233 | I6 | 5209 | F4 | |
| 2235 | J4 | 5210 | H4 | |
| 2236 | K4 | 7200 | B17 | |
| 2237 | K4 | 7201 | D17 | |
| 2238 | K4 | 7202 | H9 | |
| 2239 | P12 | | | |
| 3200-A | C13 | | | |
| 3200-B | C13 | | | |
| 3200-C | C13 | | | |
| 3200-D | C13 | | | |
| 3205-A | D13 | | | |
| 3205-B | D13 | | | |
| 3205-C | D13 | | | |
| 3205-D | C13 | | | |
| 3210-A | E13 | | | |
| 3210-B | E13 | | | |
| 3210-C | D13 | | | |
| 3210-D | D13 | | | |
| 3214-A | F13 | | | |
| 3214-B | E13 | | | |
| 3214-C | E13 | | | |
| 3214-D | E13 | | | |
| 3218-A | G13 | | | |
| 3218-B | F13 | | | |
| 3218-C | F13 | | | |
| 3218-D | F13 | | | |
| 3221 | F4 | | | |
| 3223-A | G13 | | | |
| 3223-B | G13 | | | |
| 3223-C | G13 | | | |
| 3223-D | G13 | | | |
| 3226 | E4 | | | |
| 3229 | H4 | | | |
| 3230-A | H13 | | | |
| 3230-B | H13 | | | |
| 3230-C | H13 | | | |
| 3230-D | 13 | | | |
| 3231-A | I13 | | | |
| 3231-B | I13 | | | |
| 3231-C | I13 | | | |
| 3231-D | H13 | | | |
| 3235 | I5 | | | |
| 3236-A | J13 | | | |
| 3236-B | J13 | | | |
| 3236-C | J13 | | | |
| 3236-D | I13 | | | |

S3 VIDEO DECODING




| | | | | |
|---|---|---|---|---|
| | 1921 | K12 | 5316 | H8 |
| | 2300 | C6 | 5318 | I8 |
| A | 2302 | C6 | 5320 | I8 |
| | 2304 | C8 | 6300 | J3 |
| | 2305 | C9 | 6302 | J3 |
| | 2306 | C8 | 6304 | J4 |
| | 2308 | E13 | 6306 | J4 |
| B | 2310 | E14 | 6308 | J4 |
| | 2312 | E14 | 6310 | J5 |
| | 2314 | E15 | 6312 | J3 |
| | 2316 | E15 | 6314 | J3 |
| C | 2318 | E16 | 6316 | J4 |
| | 2328 | H8 | 6318 | J4 |
| | 2330 | H9 | 6320 | J4 |
| | 2332 | H9 | 6322 | J5 |
| | 2334 | H9 | 7300 | C7 |
| D | 2336 | H8 | 7304 | I13 |
| | 2338 | H9 | | |
| | 2340 | H8 | | |
| | 2342 | I8 | | |
| E | 2344 | I8 | | |
| | 2346 | I8 | | |
| | 2348 | I8 | | |
| | 2350 | J9 | | |
| | 2352 | J10 | | |
| F | 2354 | J10 | | |
| | 2356 | J10 | | |
| | 2358 | J10 | | |
| | 2364 | L12 | | |
| | 2366 | L12 | | |
| G | 2368 | L12 | | |
| | 3300 | F11 | | |
| | 3301 | H5 | | |
| | 3302 | H5 | | |
| H | 3303 | H5 | | |
| | 3304 | H5 | | |
| | 3305 | I5 | | |
| | 3307 | I5 | | |
| | 3309 | J6 | | |
| I | 3311 | J6 | | |
| | 3312-A | G17 | | |
| | 3312-B | F17 | | |
| | 3312-C | H18 | | |
| | 3312-D | H18 | | |
| | 3313 | J6 | | |
| J | 3314-A | I18 | | |
| | 3314-B | H18 | | |
| | 3314-C | H18 | | |
| | 3314-D | H18 | | |
| | 3315 | J7 | | |
| K | 3316-A | J18 | | |
| | 3316-B | I18 | | |
| | 3316-C | I18 | | |
| | 3316-D | I18 | | |
| | 3317 | J7 | | |
| L | 3319 | J7 | | |
| | 3321 | K15 | | |
| | 3323 | K12 | | |
| | 3325-A | L13 | | |
| M | 3325-B | L14 | | |
| | 3325-C | L13 | | |
| | 3325-D | L13 | | |
| | 3327-A | L14 | | |
| | 3327-B | L14 | | |
| N | 3327-C | L14 | | |
| | 3327-D | L14 | | |
| | 3341 | E17 | | |
| | 3342 | E17 | | |
| | 3992 | F17 | | |
| O | 5300 | C5 | | |
| | 5302 | C8 | | |
| | 5306 | C8 | | |
| | 5308 | K12 | | |
| P | 5310 | H8 | | |
| | 5312 | H8 | | |
| | 5314 | H8 | | |

S4 SCALER

I/O PORTS

16-BIT MICRO-PROCESSOR

WATCHDOG AND TIMERS

PROCESSOR ROM/RAM INTERFACE

MICROPROCESSOR BUS

INTERRUPT CONTROLLER

JTAG DEBUGGER

UART

IR DECODERS

TEST CONTROL

CLOCK GENERATOR

YUV TO RGB

YPBPR TO RGB

VIDEO PORT PIXEL PROCESSING

GRAPHICS PORT PIXEL PROCESSING

PROCESSOR MEMORY INTERFACE

SDRAM FRAME BUFFER

MEMORY IN BUS

MEMORY OUT BUS

IMAGE SCALERS

COLOR MATRIX

GAIN

OSD

COLOR LOOKUP TABLES

COLOR SPACE EXPANDER

ON SCREEN DISPLAY

SYNC DECODER AND TIMER

AUTOMATIC IMAGE OPTIMIZER

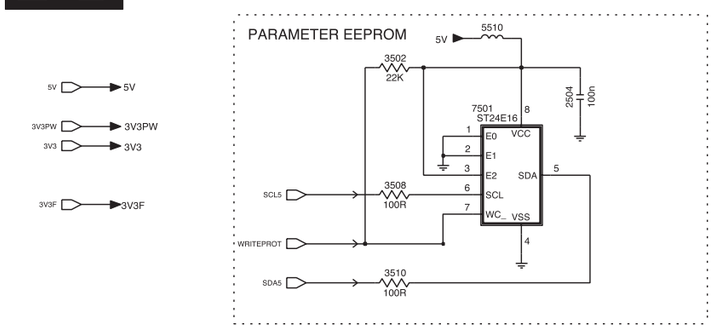
DISPLAY TIMING GENERATOR

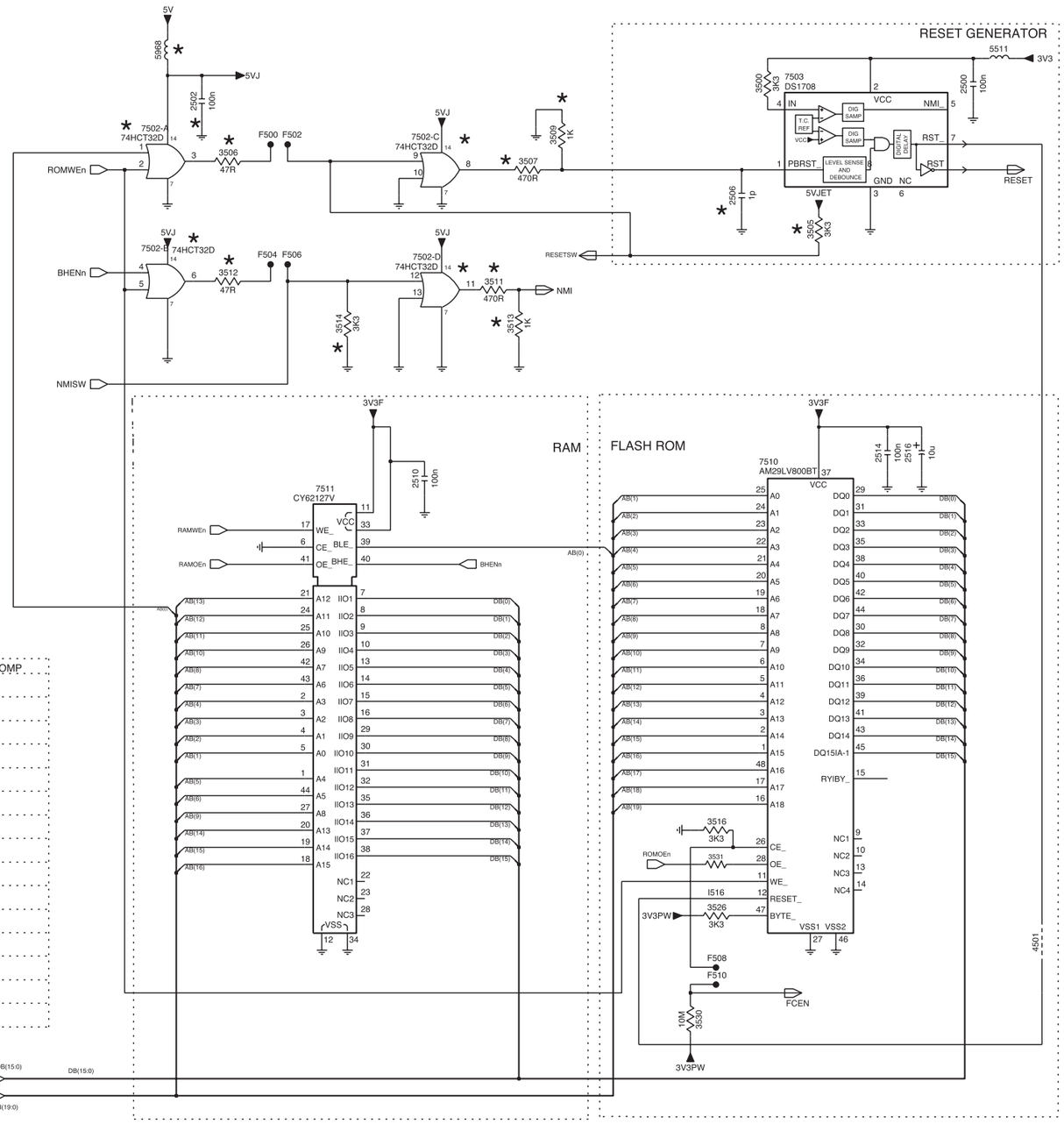
* RESERVED COMPONENTS

CL 26645004_016.eps
150502

| | |
|---|---|
| 1922 | N6 |
| 2400 | B17 |
| 2401 | B17 |
| 2402 | B18 |
| 2403 | B18 |
| 2404 | B19 |
| 2405 | C17 |
| 2406 | C17 |
| 2407 | C18 |
| 2408 | C18 |
| 2409 | C19 |
| 2411 | B15 |
| 2412 | B15 |
| 2413 | B16 |
| 2414 | B16 |
| 2415 | B17 |
| 2416 | B16 |
| 2417 | C15 |
| 2418 | C16 |
| 2419 | C16 |
| 2420 | C16 |
| 2421 | C17 |
| 2934 | N6 |
| 2935 | N6 |
| 3401 | A8 |
| 3403 | A8 |
| 3404 | B13 |
| 3410-A | H15 |
| 3410-B | I15 |
| 3410-C | I15 |
| 3410-D | I15 |
| 3414-A | I15 |
| 3414-B | I15 |
| 3414-C | I15 |
| 3414-D | I15 |
| 3416-A | H15 |
| 3416-B | H15 |
| 3416-C | H15 |
| 3416-D | H15 |
| 3420-A | H15 |
| 3420-B | H15 |
| 3420-C | H15 |
| 3420-D | H15 |
| 3424-A | G15 |
| 3424-B | G15 |
| 3424-C | G15 |
| 3424-D | G15 |
| 3428-A | G15 |
| 3428-B | G15 |
| 3428-C | G15 |
| 3428-D | G15 |
| 3438-A | M15 |
| 3438-B | M15 |
| 3438-C | L15 |
| 3438-D | M15 |
| 3447 | E15 |
| 3448 | E16 |
| 3449 | E15 |
| 3450 | E15 |
| 3451 | E15 |
| 3452 | C14 |
| 3453 | E14 |
| 3454-A | A5 |
| 3454-B | B6 |
| 3454-C | B5 |
| 3454-D | B6 |
| 3455-A | B4 |
| 3455-B | B3 |
| 3455-C | B4 |
| 3455-D | B3 |
| 3456 | D2 |
| 3457 | C2 |
| 3458 | C2 |
| 3459 | C2 |
| 6402 | A7 |
| 6403 | A7 |
| 7400 | H9 |

# S5 RAM_ROM_DEBUG



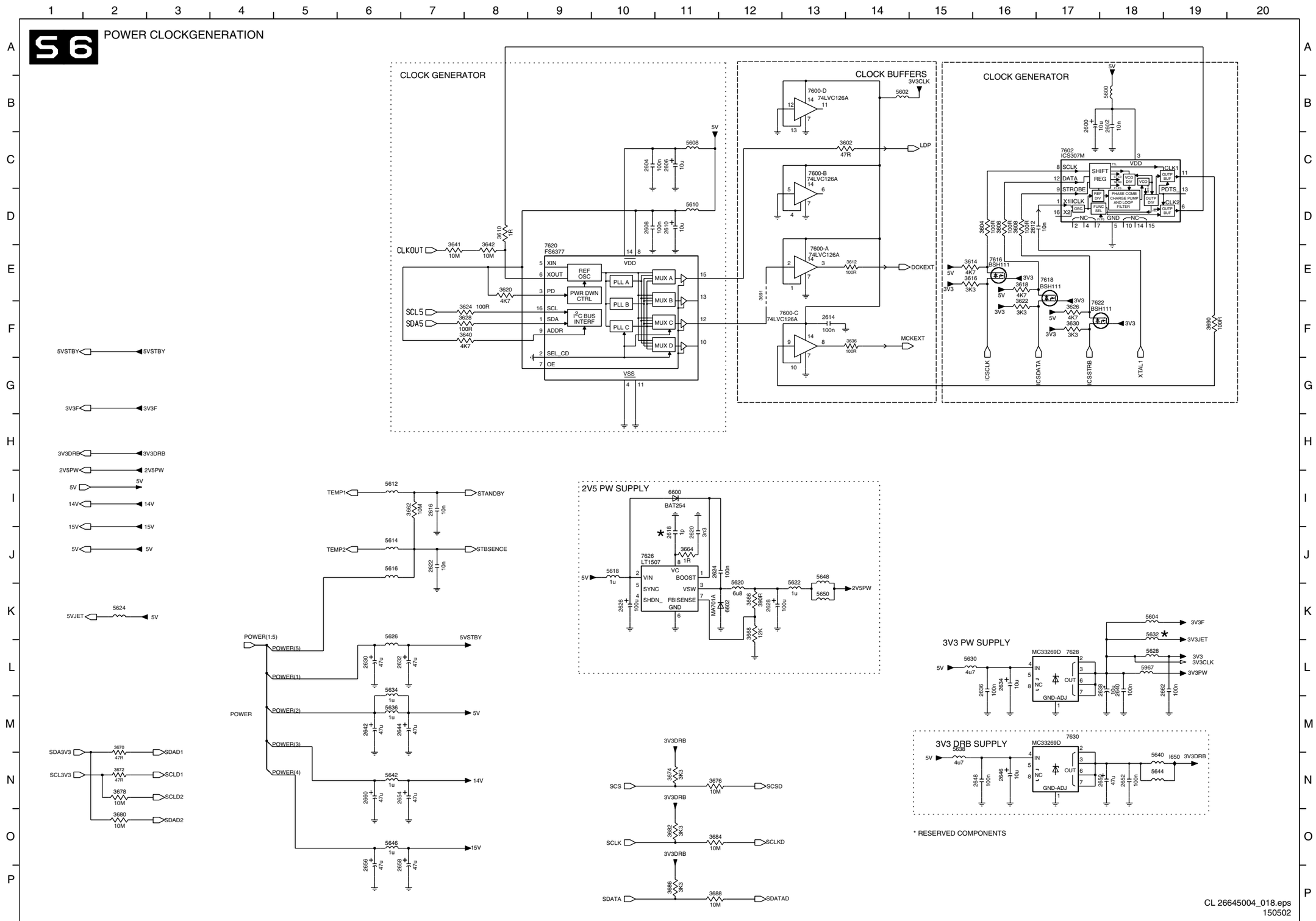

* RESERVED COMPONENTS

| Ref Des | 3122_438_51150 | RESERVED_COMP |
|---|---|---|
| 2502 | NOT USED | 319802341040 100n |
| 2506 | NOT USED | 319801631080 1p |
| 3505 | NOT USED | 319802133320 3K3 |
| 3506 | NOT USED | 319802134790 47R |
| 3507 | NOT USED | 319802134710 470R |
| 3509 | NOT USED | 319802131020 1K |
| 3511 | NOT USED | 319802134710 470R |
| 3512 | NOT USED | 319802134790 47R |
| 3513 | NOT USED | 319802131020 1K |
| 3514 | NOT USED | 319802133320 3K3 |
| 5968 | NOT USED | 319801890080 |
| 7502-A | NOT USED | 933719470653 74HCT32D |
| 7502-B | NOT USED | 933719470653 74HCT32D |
| 7502-C | NOT USED | 933719470653 74HCT32D |
| 7502-D | NOT USED | 933719470653 74HCT32D |

| | |
|---|---|
| 2500 | B18 |
| 2502 | B10 |
| 2504 | B6 |
| 2506 | C16 |
| 2510 | F13 |
| 2514 | F17 |
| 2516 | F18 |
| 3500 | B16 |
| 3502 | B4 |
| 3505 | C17 |
| 3506 | C10 |
| 3507 | C14 |
| 3508 | C4 |
| 3509 | B14 |
| 3510 | D4 |
| 3511 | D13 |
| 3512 | D10 |
| 3513 | E13 |
| 3514 | E12 |
| 3516 | J16 |
| 3526 | K16 |
| 3530 | M15 |
| 3531 | K16 |
| 4501 | L19 |
| 5510 | B5 |
| 5511 | A18 |
| 5968 | A10 |
| 7501 | C5 |
| 7502-A | C10 |
| 7502-B | D10 |
| 7502-C | C13 |
| 7502-D | D13 |
| 7503 | B17 |
| 7510 | I17 |
| 7511 | I12 |

CL 26645004_017.eps
230402

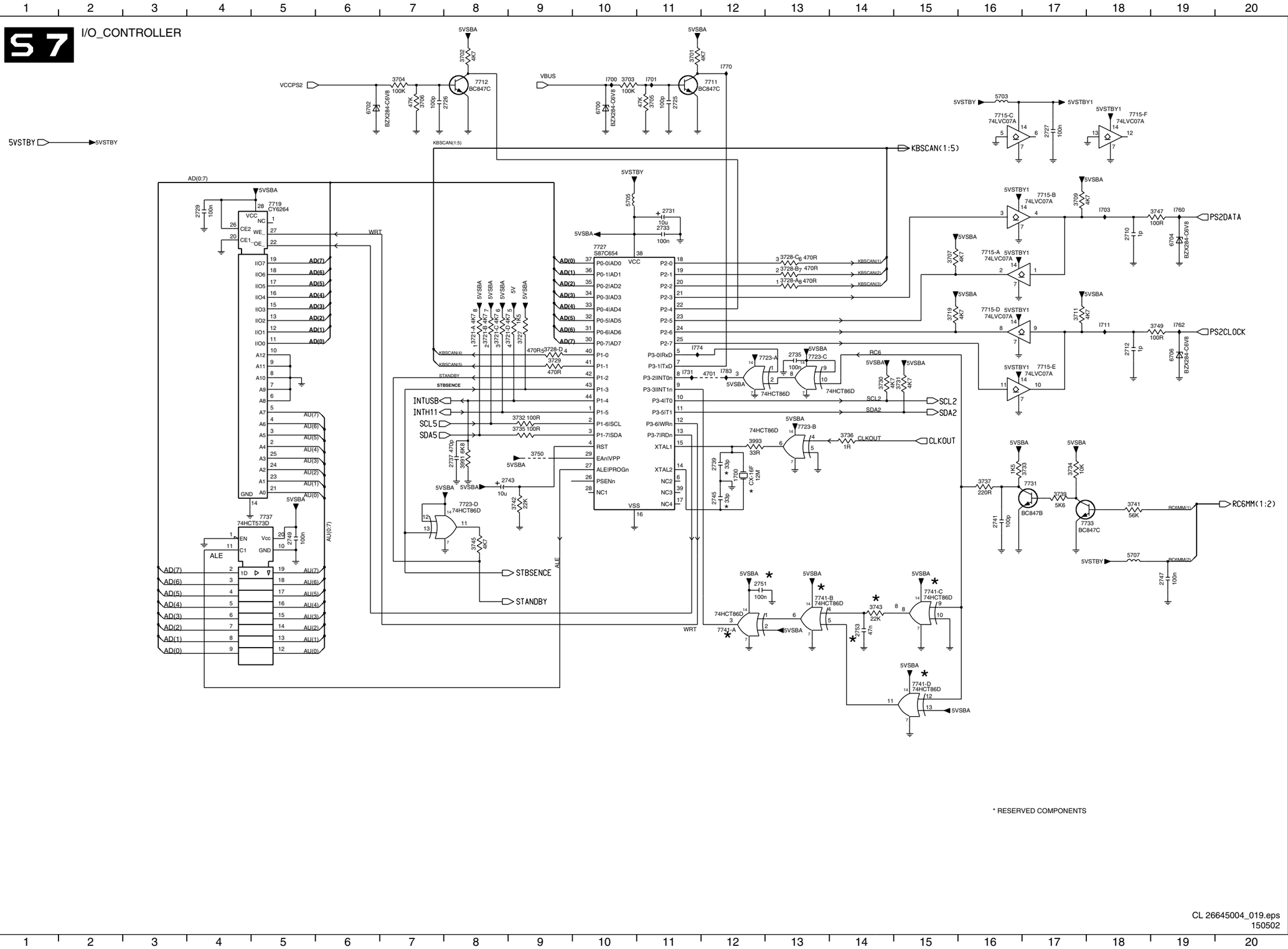
# S6 POWER CLOCKGENERATION




CL 26645004_018.eps
150502

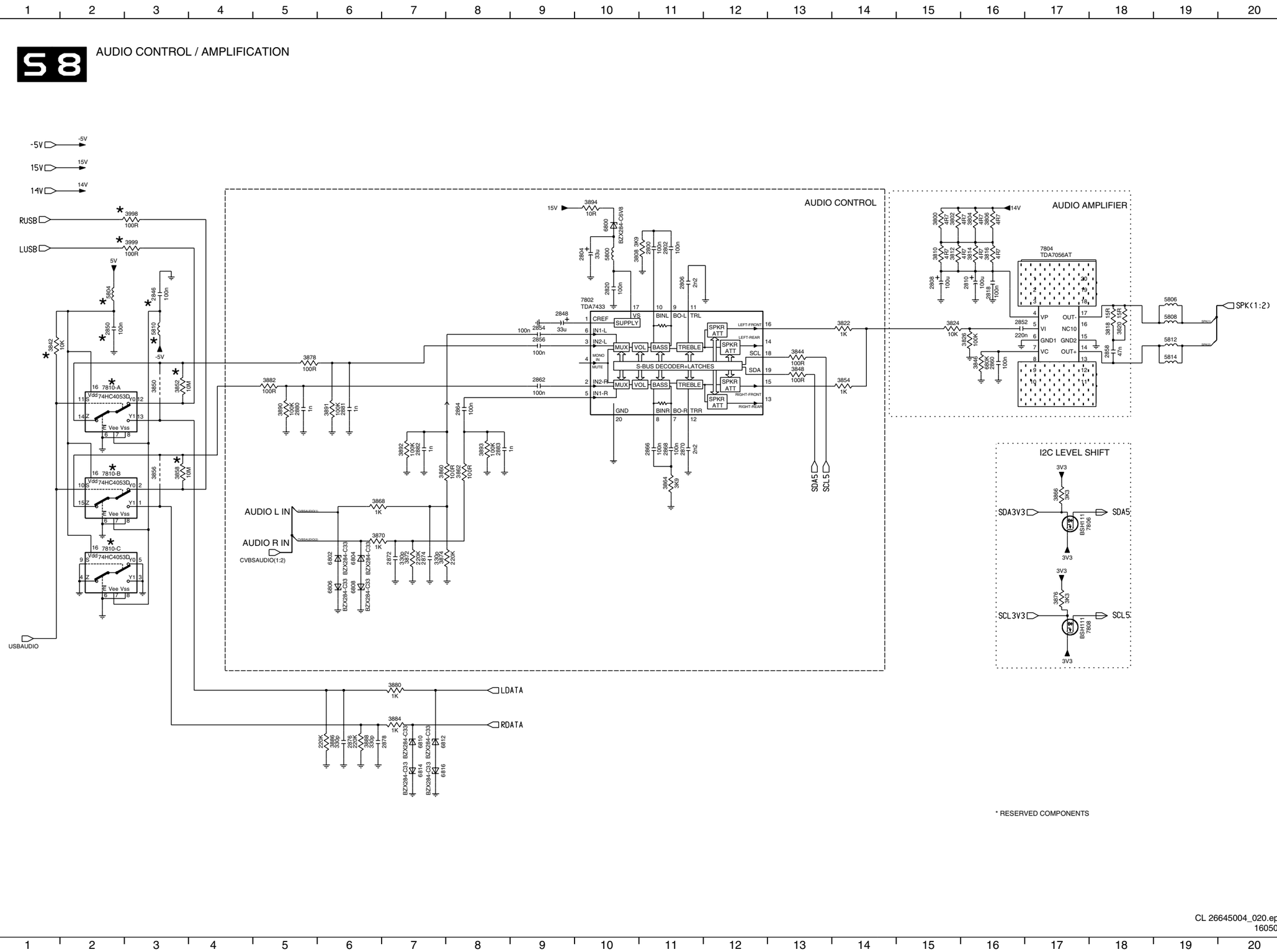
| | | | | |
|---|---|---|---|---|
| 2600 | B17 | 5620 | K12 | |
| 2602 | B18 | 5622 | K13 | |
| 2604 | C10 | 5624 | K2 | |
| 2606 | C11 | 5626 | L6 | |
| 2608 | D10 | 5628 | L18 | |
| 2610 | D11 | 5630 | L15 | |
| 2612 | D16 | 5632 | L18 | |
| 2614 | F13 | 5634 | M6 | |
| 2616 | I7 | 5636 | M6 | |
| 2618 | J11 | 5638 | N15 | |
| 2620 | J11 | 5640 | N18 | |
| 2622 | J7 | 5642 | N6 | |
| 2624 | J11 | 5644 | N18 | |
| 2626 | K10 | 5646 | O6 | |
| 2628 | K12 | 5648 | K13 | |
| 2630 | L6 | 5650 | K13 | |
| 2632 | L7 | 5967 | L18 | |
| 2634 | L16 | 6600 | I11 | |
| 2636 | L16 | 6602 | K11 | |
| 2638 | L17 | 7600-A | E13 | |
| 2640 | L18 | 7600-B | D13 | |
| 2642 | M6 | 7600-C | F13 | |
| 2644 | M7 | 7600-D | B13 | |
| 2646 | N16 | 7602 | D18 | |
| 2648 | N16 | 7616 | E16 | |
| 2650 | N17 | 7618 | F17 | |
| 2652 | N18 | 7620 | F10 | |
| 2654 | N7 | 7622 | F17 | |
| 2656 | P6 | 7626 | K11 | |
| 2658 | P7 | 7628 | L17 | |
| 2660 | N6 | 7630 | N17 | |
| 2662 | L18 | | | |
| 3602 | C13 | | | |
| 3604 | D16 | | | |
| 3606 | D16 | | | |
| 3608 | D16 | | | |
| 3610 | D8 | | | |
| 3612 | E13 | | | |
| 3614 | E15 | | | |
| 3616 | E15 | | | |
| 3618 | E16 | | | |
| 3620 | E8 | | | |
| 3622 | F16 | | | |
| 3624 | F7 | | | |
| 3626 | F17 | | | |
| 3628 | F7 | | | |
| 3630 | F17 | | | |
| 3636 | F13 | | | |
| 3640 | F7 | | | |
| 3641 | E7 | | | |
| 3642 | E8 | | | |
| 3662 | I7 | | | |
| 3664 | J11 | | | |
| 3666 | K12 | | | |
| 3668 | K12 | | | |
| 3670 | N2 | | | |
| 3672 | N2 | | | |
| 3674 | N11 | | | |
| 3676 | N11 | | | |
| 3678 | N2 | | | |
| 3680 | O2 | | | |
| 3682 | O11 | | | |
| 3684 | O11 | | | |
| 3686 | P11 | | | |
| 3688 | P11 | | | |
| 3690 | F19 | | | |
| 3691 | E12 | | | |
| 5600 | B18 | | | |
| 5602 | B14 | | | |
| 5604 | K18 | | | |
| 5608 | C11 | | | |
| 5610 | D11 | | | |
| 5612 | I6 | | | |
| 5614 | J6 | | | |
| 5616 | J6 | | | |
| 5618 | J10 | | | |

S 7 I/O_CONTROLLER




| | | | |
|---|---|---|---|
| 1700 | I12 | 7723-C | G13 |
| 2710 | D18 | 7723-D | I7 |
| 2712 | F18 | 7727 | G10 |
| 2725 | B11 | 7731 | I17 |
| 2726 | B7 | 7733 | I17 |
| 2727 | C17 | 7737 | K5 |
| 2729 | D4 | 7741-A | K12 |
| 2731 | D11 | 7741-B | K13 |
| 2733 | D11 | 7741-C | K15 |
| 2735 | G13 | 7741-D | M15 |
| 2737 | H8 | | |
| 2739 | H12 | | |
| 2741 | I16 | | |
| 2743 | I8 | | |
| 2745 | I12 | | |
| 2747 | J19 | | |
| 2749 | J5 | | |
| 2751 | K12 | | |
| 2753 | K14 | | |
| 3701 | A11 | | |
| 3702 | A8 | | |
| 3703 | B10 | | |
| 3704 | B7 | | |
| 3705 | B11 | | |
| 3706 | B7 | | |
| 3707 | E15 | | |
| 3709 | D17 | | |
| 3711 | F17 | | |
| 3719 | F15 | | |
| 3721-A | F8 | | |
| 3721-B | F8 | | |
| 3721-C | F8 | | |
| 3721-D | F9 | | |
| 3727 | F9 | | |
| 3728-A | E13 | | |
| 3728-B | E13 | | |
| 3728-C | E13 | | |
| 3728-D | F9 | | |
| 3729 | G9 | | |
| 3730 | G14 | | |
| 3731 | G15 | | |
| 3732 | H9 | | |
| 3733 | H16 | | |
| 3734 | H17 | | |
| 3735 | H9 | | |
| 3736 | H14 | | |
| 3737 | I16 | | |
| 3739 | I17 | | |
| 3741 | I18 | | |
| 3742 | I9 | | |
| 3743 | K14 | | |
| 3745 | J8 | | |
| 3747 | D18 | | |
| 3749 | F18 | | |
| 3750 | H9 | | |
| 3991 | H8 | | |
| 3993 | H12 | | |
| 4701 | G12 | | |
| 5703 | B16 | | |
| 5705 | D10 | | |
| 5707 | J18 | | |
| 6700 | B10 | | |
| 6702 | B6 | | |
| 6704 | D19 | | |
| 6706 | F19 | | |
| 7711 | B11 | | |
| 7712 | B8 | | |
| 7715-A | E16 | | |
| 7715-B | D16 | | |
| 7715-C | C16 | | |
| 7715-D | F16 | | |
| 7715-E | G16 | | |
| 7715-F | C18 | | |
| 7719 | F4 | | |
| 7723-A | G12 | | |
| 7723-B | H13 | | |

# S8 AUDIO CONTROL / AMPLIFICATION




* RESERVED COMPONENTS

CL 26645004_020.eps
160502

| | | | | | |
|---|---|---|---|---|---|
| 2800 | E11 | 5806 | F19 | 3810 | E15 |
| 2802 | E11 | 5808 | F19 | 3812 | E15 |
| 2804 | E10 | 5810 | F3 | 3814 | E16 |
| 2806 | E11 | 5812 | F19 | 3816 | E16 |
| 2808 | E15 | 5814 | G19 | 3818 | F18 |
| 2810 | E16 | 6800 | D10 | 3820 | F18 |
| 2818 | E16 | 6802 | J6 | 3822 | F14 |
| 2820 | E10 | 6804 | J6 | 3824 | F15 |
| 2846 | E3 | 6806 | J6 | 3826 | F16 |
| 2848 | F9 | 6808 | J6 | 3842 | F1 |
| 2850 | F2 | 6810 | M7 | 3844 | F13 |
| 2852 | F16 | 6812 | M7 | 3846 | G16 |
| 2854 | F9 | 6814 | N7 | 3848 | G13 |
| 2856 | F9 | 6816 | N7 | 3850 | G3 |
| 2858 | F18 | 7802 | G11 | 3852 | G3 |
| 2860 | G16 | 7804 | F17 | 3854 | G14 |
| 2862 | G9 | 7806 | I17 | 3856 | H3 |
| 2864 | G8 | 7808 | K17 | 3858 | H3 |
| 2866 | H11 | 7810-A | G2 | 3860 | H7 |
| 2868 | H11 | 7810-B | I2 | 3862 | H8 |
| 2870 | H11 | 7810-C | J2 | 3864 | I11 |
| 2872 | J7 | | | 3866 | I17 |
| 2874 | J7 | | | 3868 | I6 |
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| 2878 | M6 | | | 3872 | J7 |
| 2880 | G5 | | | 3874 | J7 |
| 2881 | G6 | | | 3876 | K17 |
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| 2883 | H8 | | | 3880 | L7 |
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| 3804 | D16 | | | 3886 | M6 |
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| | | | | 3891 | G6 |
| | | | | 3892 | H7 |
| | | | | 3893 | H8 |
| | | | | 3894 | D10 |
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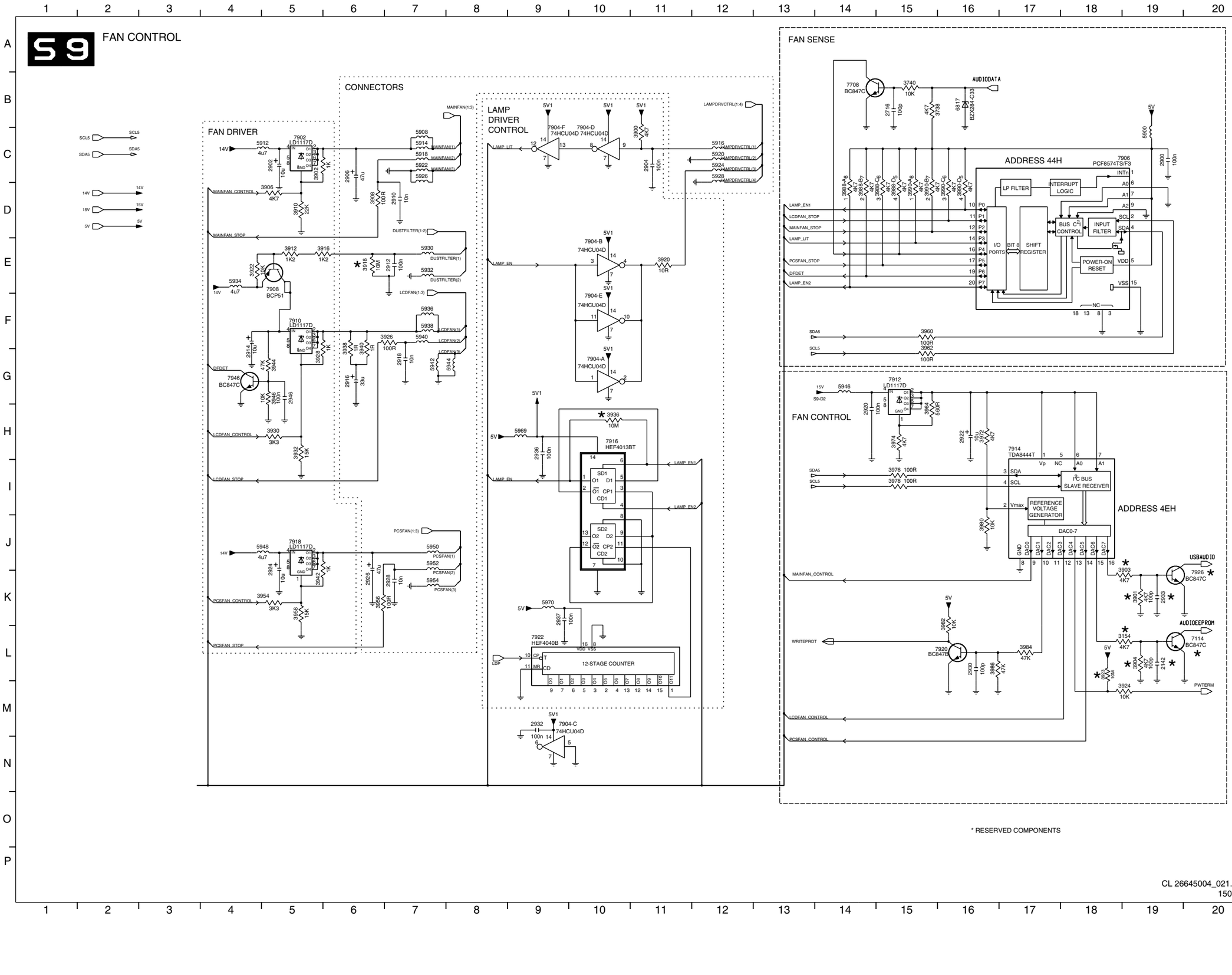
# S9 FAN CONTROL

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| 2904 | C10 | 5924 | C12 | 5900 | C19 |
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| 2910 | D6 | 5928 | D12 | 5912 | C4 |
| 2912 | E6 | 5930 | E7 | 5914 | C7 |
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| 2920 | H14 | 5938 | F7 | | |
| 2922 | H16 | 5940 | F7 | | |
| 2924 | K4 | 5942 | G7 | | |
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| 2928 | K6 | 5946 | G14 | | |
| 2930 | L16 | 5948 | J4 | | |
| 2932 | M9 | 5950 | J7 | | |
| 2933 | K19 | 5952 | K7 | | |
| 2936 | H9 | 5954 | K7 | | |
| 2937 | K9 | 5969 | H8 | | |
| 2946 | G5 | 5970 | K9 | | |
| 3154 | L18 | 6817 | B16 | | |
| 3738 | B15 | 7114 | L19 | | |
| 3740 | B15 | 7708 | B14 | | |
| 3900 | C10 | 7904-A | G10 | | |
| 3901 | K18 | 7904-B | E10 | | |
| 3902 | C5 | 7904-C | N9 | | |
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| 3904 | L18 | 7904-E | F10 | | |
| 3906 | D4 | 7904-F | C9 | | |
| 3908 | D6 | 7906 | E17 | | |
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| 3912 | E5 | 7910 | F5 | | |
| 3916 | E5 | 7912 | H14 | | |
| 3918 | E6 | 7914 | I17 | | |
| 3920 | E11 | 7916 | J10 | | |
| 3922 | E4 | 7918 | J5 | | |
| 3923 | L18 | 7920 | L15 | | |
| 3924 | M18 | 7922 | L10 | | |
| 3926 | F6 | 7926 | K19 | | |
| 3928 | G5 | 7946 | G4 | | |
| 3930 | H4 | 7902 | C5 | | |
| 3932 | H5 | | | | |
| 3936 | H10 | | | | |
| 3938 | G6 | | | | |
| 3940 | G6 | | | | |
| 3942 | K5 | | | | |
| 3944 | G4 | | | | |
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| 3958 | K5 | | | | |
| 3960 | F15 | | | | |
| 3962 | G15 | | | | |
| 3964 | H15 | | | | |
| 3972 | H16 | | | | |
| 3974 | H14 | | | | |
| 3976 | I14 | | | | |
| 3978 | I14 | | | | |
| 3980 | J16 | | | | |
| 3982 | L15 | | | | |
| 3984 | L17 | | | | |
| 3986 | L16 | | | | |
| 3988-A | D14 | | | | |
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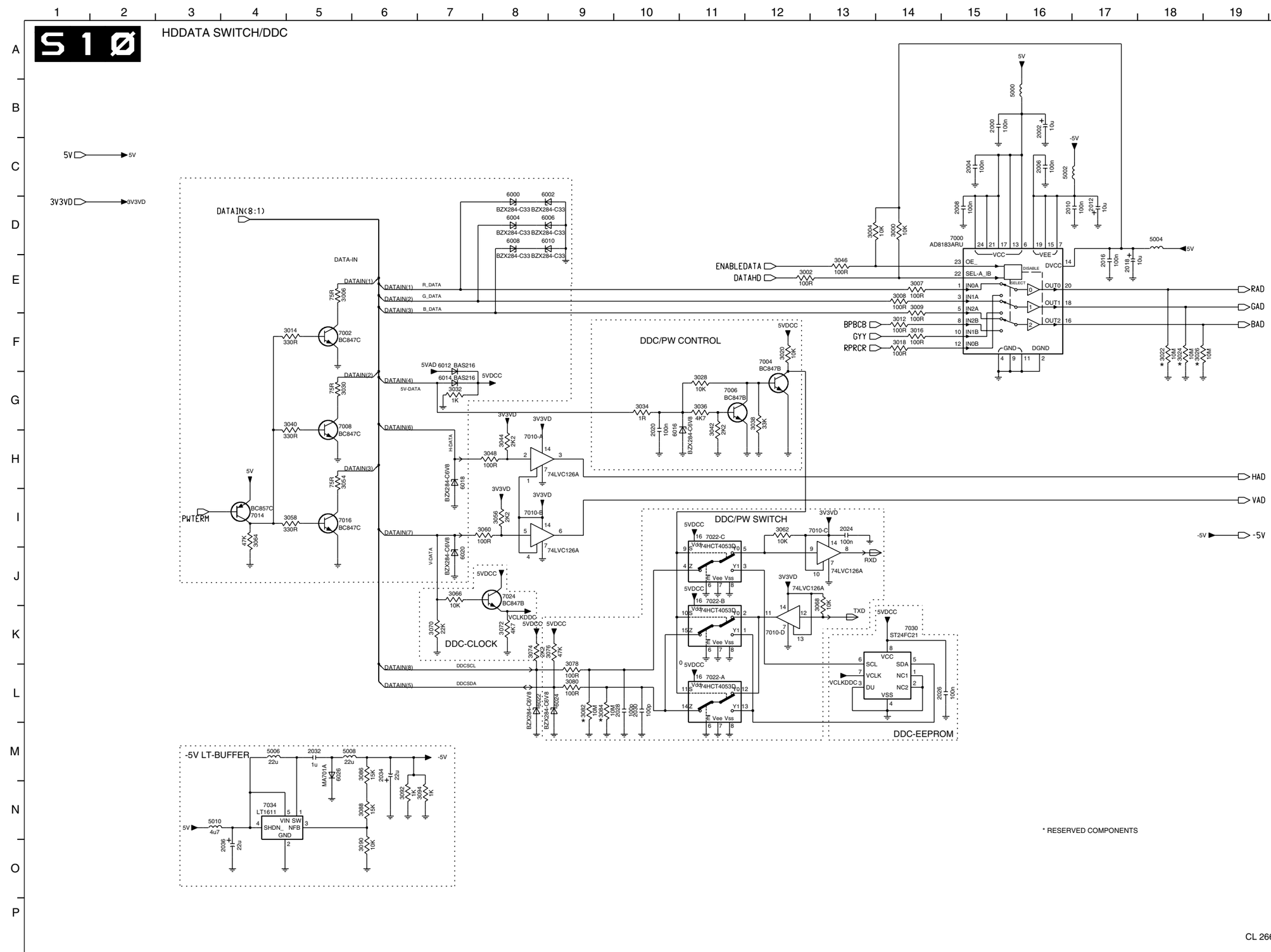
S10

HDDATA SWITCH/DDC

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| 2010 | D16 | 7006 | G11 |
| 2012 | D17 | 7008 | H5 |
| 2016 | E17 | 7010-A | H8 |
| 2018 | E17 | 7010-B | I8 |
| 2020 | H10 | 7010-C | J13 |
| 2024 | I13 | 7010-D | K12 |
| 2026 | L14 | 7014 | I4 |
| 2028 | L10 | 7016 | I5 |
| 2030 | L10 | 7022-A | L11 |
| 2032 | M5 | 7022-B | K11 |
| 2034 | M6 | 7022-C | J11 |
| 2036 | O4 | 7024 | J8 |
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| 3002 | E12 | 7034 | N4 |
| 3004 | D13 | | |
| 3006 | E5 | | |
| 3007 | E14 | | |
| 3008 | E14 | | |
| 3009 | F14 | | |
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| 3014 | F5 | | |
| 3016 | F14 | | |
| 3018 | F14 | | |
| 3020 | F12 | | |
| 3022 | F18 | | |
| 3024 | F18 | | |
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| 3032 | G7 | | |
| 3034 | G10 | | |
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| 3048 | H8 | | |
| 3054 | H5 | | |
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| 3060 | I7 | | |
| 3062 | I12 | | |
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| 3076 | K9 | | |
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| 3088 | N6 | | |
| 3090 | O6 | | |
| 3092 | N6 | | |
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| 6006 | D8 | | |
| 6008 | D8 | | |
| 6010 | D8 | | |
| 6012 | G7 | | |
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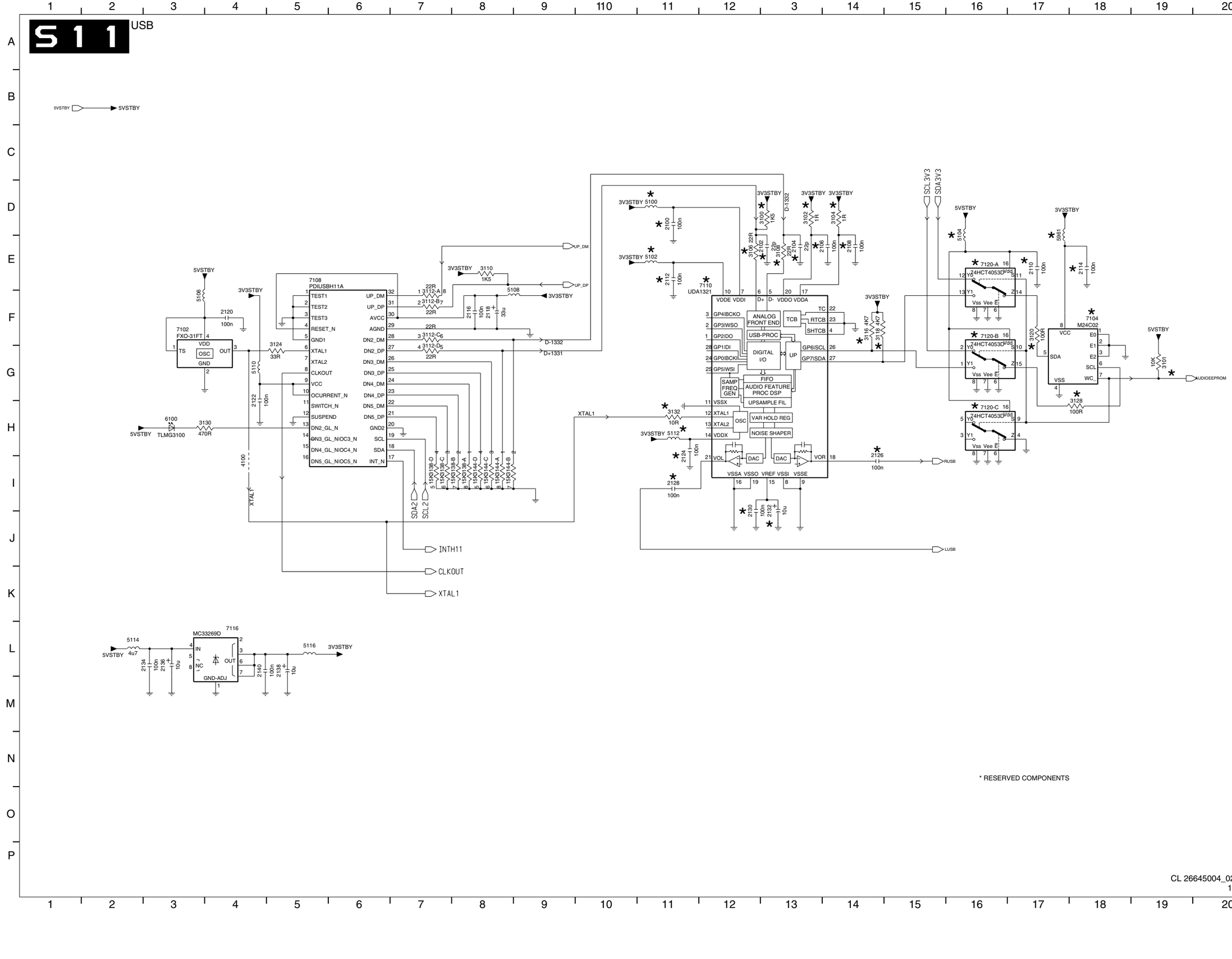
S 1 1 USB

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| | 2120 | F4 |
| C | 2122 | H4 |
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| | 2130 | J12 |
| D | 2132 | J13 |
| | 2134 | L3 |
| | 2136 | L3 |
| | 2138 | L5 |
| | 2140 | L4 |
| | 3100 | D13 |
| | 3101 | G19 |
| | 3102 | D13 |
| | 3104 | D14 |
| | 3106 | E12 |
| F | 3112-A | F7 |
| | 3112-B | F7 |
| | 3112-C | F7 |
| | 3112-D | G7 |
| | 3116 | F14 |
| G | 3118 | F14 |
| | 3120 | F17 |
| | 3124 | G5 |
| | 3128 | H17 |
| | 3130 | H3 |
| H | 3132 | H11 |
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| | 3138-C | I7 |
| | 3138-D | I7 |
| | 3144-A | I8 |
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| | 3144-D | I8 |
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| J | 6100 | H3 |
| | 7102 | G3 |
| | 7104 | G17 |
| | 7108 | G6 |
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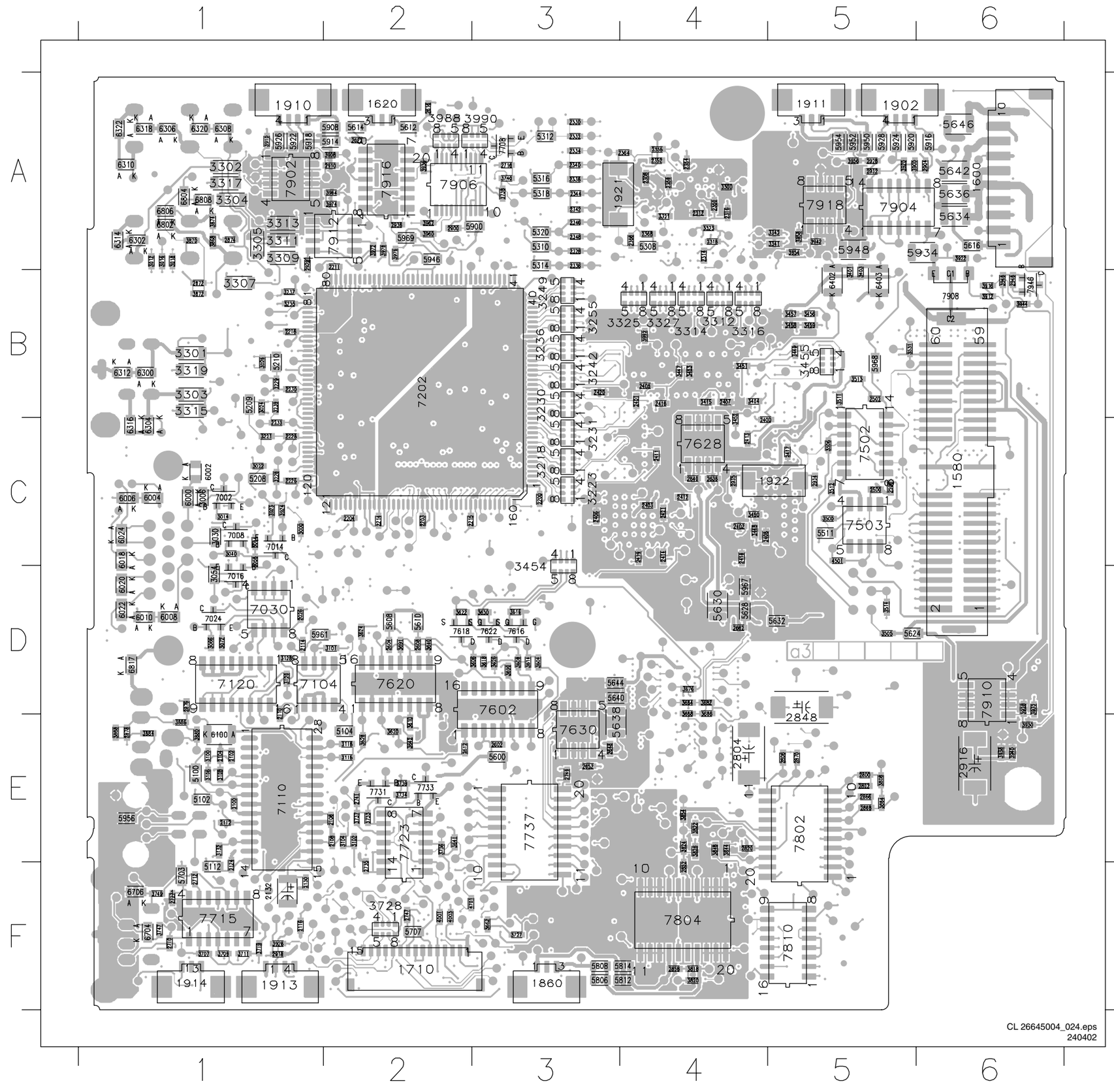


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| 1600 | A6 | 2419 | C4 | 3118 | E2 | 3628 | E2 | 3988 | A2 | 6024 | C1 |
| 1620 | A2 | 2420 | B3 | 3120 | D1 | 3630 | D3 | 3990 | A3 | 6100 | E1 |
| 1710 | F2 | 2421 | C4 | 3128 | D1 | 3640 | D2 | 3992 | B4 | 6300 | B1 |
| 1860 | F3 | 2500 | C5 | 3132 | E1 | 3641 | E2 | 4001 | F2 | 6302 | A1 |
| 1902 | A5 | 2502 | B5 | 3218 | C3 | 3642 | E2 | 4003 | F2 | 6304 | C1 |
| 1910 | A1 | 2506 | C5 | 3221 | C1 | 3662 | F3 | 4501 | C5 | 6306 | A1 |
| 1911 | A5 | 2602 | E3 | 3223 | C3 | 3676 | D4 | 4701 | F2 | 6308 | A1 |
| 1913 | F1 | 2604 | D2 | 3226 | C1 | 3682 | D4 | 5100 | E1 | 6310 | A1 |
| 1914 | F1 | 2608 | D2 | 3229 | B1 | 3684 | D4 | 5102 | E1 | 6312 | B1 |
| 1921 | A3 | 2612 | E2 | 3230 | B3 | 3686 | D4 | 5104 | E2 | 6314 | A1 |
| 1922 | C5 | 2616 | A2 | 3231 | C3 | 3688 | D4 | 5112 | F1 | 6316 | C1 |
| 2026 | D1 | 2622 | A2 | 3235 | B1 | 3690 | D3 | 5208 | C1 | 6318 | A1 |
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| 2106 | E2 | 2652 | E3 | 3242 | B3 | 3711 | F1 | 5310 | A3 | 6403 | B5 |
| 2108 | E2 | 2662 | D4 | 3249 | B3 | 3719 | F1 | 5312 | A3 | 6704 | F1 |
| 2110 | D1 | 2710 | F1 | 3255 | B3 | 3727 | F3 | 5314 | A3 | 6706 | F1 |
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| 2364 | A4 | 3016 | A1 | 3500 | C5 | 3928 | D6 | 5946 | A2 | 7912 | A2 |
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| 2407 | B4 | 3064 | C1 | 3606 | D3 | 3954 | A5 | 5969 | A2 | | |
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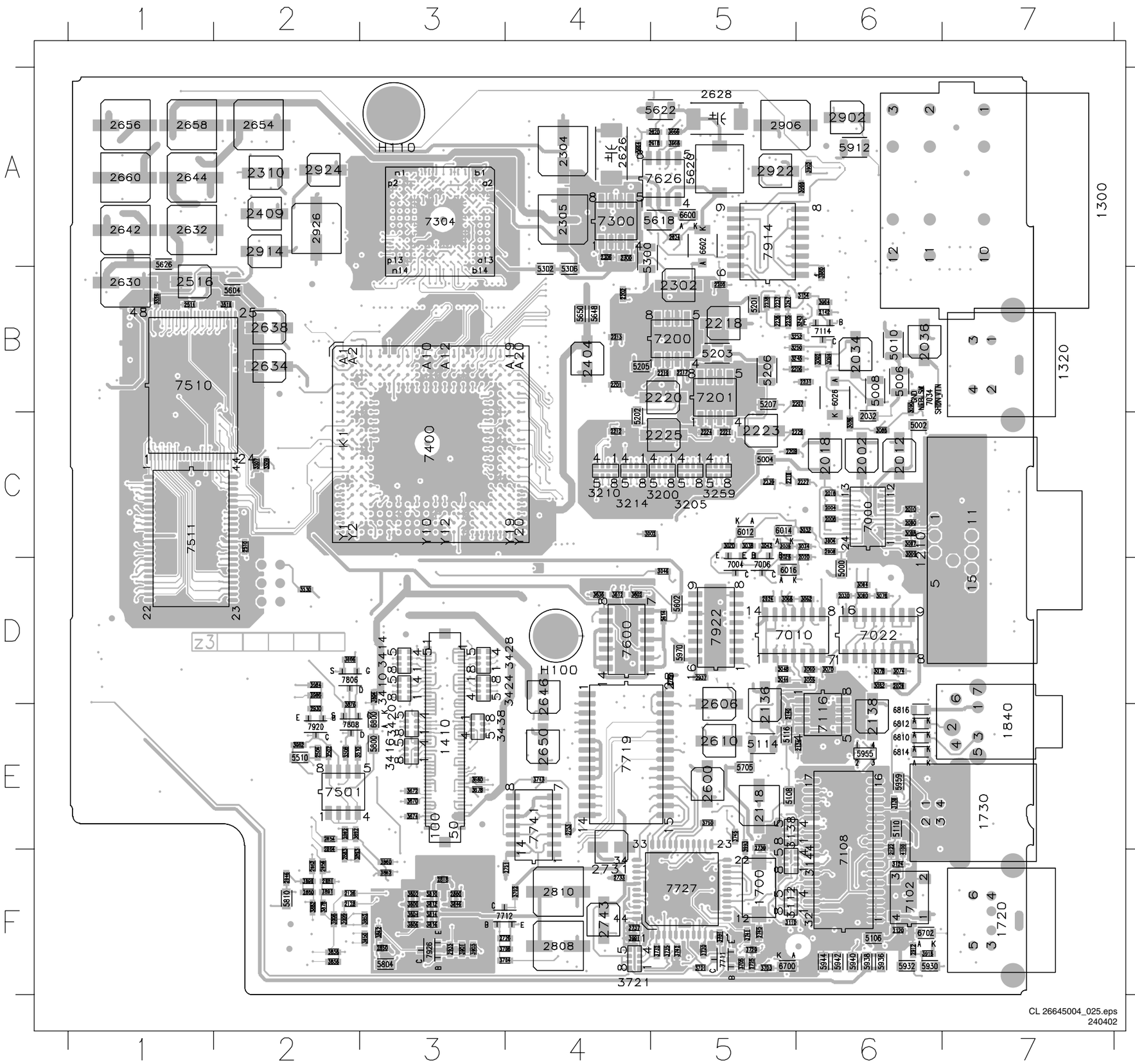


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| 1730 | E7 | 2632 | A1 | 3092 | B6 | 3858 | E2 | 6600 | A5 |
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| 2004 | C6 | 2644 | A1 | 3124 | F6 | 3876 | E2 | 6800 | E3 |
| 2006 | C6 | 2646 | D4 | 3130 | E6 | 3878 | F2 | 6810 | E6 |
| 2008 | C6 | 2650 | E4 | 3138 | E5 | 3882 | F2 | 6812 | E6 |
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| 2018 | C6 | 2660 | A1 | 3205 | C5 | 3893 | E2 | 7004 | D5 |
| 2020 | C6 | 2725 | F5 | 3210 | C4 | 3894 | D3 | 7006 | D5 |
| 2024 | D5 | 2726 | F4 | 3214 | C4 | 3901 | F3 | 7010 | D5 |
| 2028 | D6 | 2729 | D5 | 3243 | B6 | 3902 | A6 | 7022 | D6 |
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| 2032 | C6 | 2733 | F4 | 3247 | B5 | 3904 | B6 | 7102 | F6 |
| 2034 | B6 | 2737 | F4 | 3250 | B6 | 3906 | A6 | 7108 | F6 |
| 2036 | B6 | 2739 | E5 | 3252 | B6 | 3918 | F6 | 7114 | B6 |
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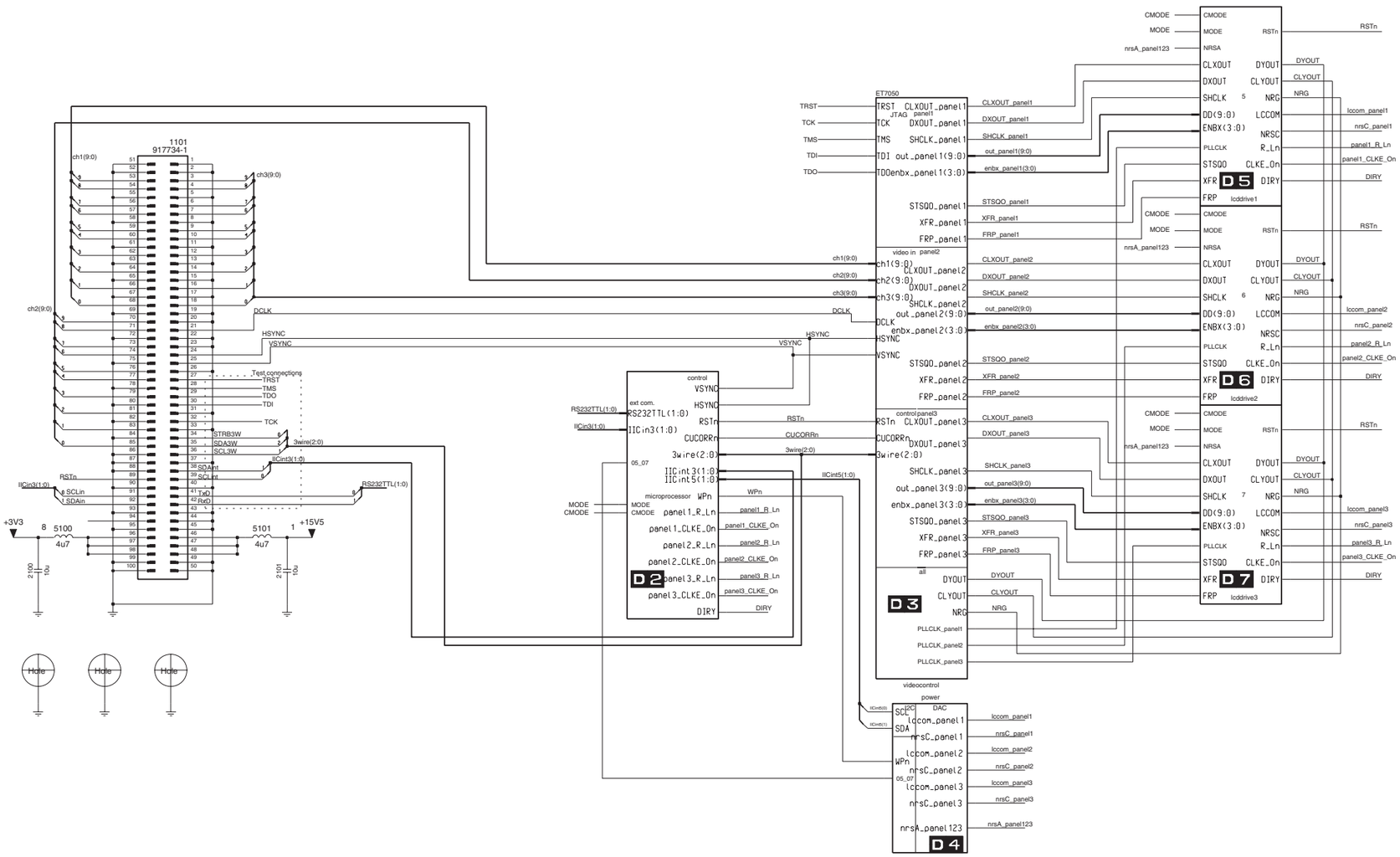
| 2210 | C5 | 2882 | E2 | 3602 | D4 | 5108 | E5 | 7806 | D2 |
| 2212 | C4 | 2883 | F2 | 3612 | D4 | 5110 | E6 | 7808 | E2 |
| 2213 | B4 | 2902 | A6 | 3636 | D4 | 5114 | E5 | 7914 | A5 |
| 2217 | B5 | 2906 | A5 | 3664 | A4 | 5116 | E5 | 7920 | E2 |
| 2218 | B5 | 2912 | F6 | 3666 | A5 | 5201 | B5 | 7922 | D5 |
| 2219 | B5 | 2914 | A2 | 3668 | A5 | 5202 | C4 | 7926 | F3 |
| 2220 | B5 | 2922 | A5 | 3670 | E3 | 5203 | B5 | | |
| 2221 | C5 | 2924 | A2 | 3672 | E3 | 5205 | B4 | | |
| 2223 | C5 | 2926 | A2 | 3674 | E3 | 5206 | B5 | | |
| 2224 | C5 | 2930 | E2 | 3678 | E3 | 5207 | B5 | | |
| 2225 | C5 | 2933 | F3 | 3680 | E3 | 5300 | A4 | | |
| 2227 | C6 | 2937 | D5 | 3701 | F5 | 5302 | B4 | | |
| 2229 | C6 | 3002 | C4 | 3702 | E4 | 5306 | B4 | | |
| 2231 | B6 | 3004 | C6 | 3703 | F5 | 5510 | E2 | | |
| 2235 | B5 | 3007 | C6 | 3704 | E4 | 5602 | D5 | | |
| 2236 | B5 | 3008 | C6 | 3705 | F5 | 5604 | B2 | | |
| 2237 | B5 | 3009 | C6 | 3706 | F4 | 5618 | A5 | | |
| 2238 | B5 | 3020 | C5 | 3721 | F4 | 5620 | A5 | | |
| 2239 | C5 | 3028 | C5 | 3729 | F5 | 5622 | A5 | | |
| 2300 | A4 | 3032 | C6 | 3730 | F5 | 5626 | A1 | | |
| 2302 | B5 | 3034 | C6 | 3731 | F5 | 5648 | B4 | | |
| 2304 | A4 | 3036 | C5 | 3732 | F5 | 5650 | B4 | | |
| 2305 | A4 | 3038 | C5 | 3735 | F5 | 5705 | E5 | | |
| 2306 | A4 | 3042 | C5 | 3741 | F5 | 5800 | E3 | | |
| 2310 | A2 | 3044 | D5 | 3742 | F5 | 5804 | F3 | | |
| 2404 | B4 | 3046 | D5 | 3743 | E4 | 5810 | E2 | | |
| 2409 | A2 | 3048 | D5 | 3745 | E5 | 5912 | A6 | | |
| 2504 | E2 | 3056 | D6 | 3750 | E5 | 5930 | F6 | | |
| 2510 | C2 | 3060 | D6 | 3800 | F3 | 5932 | F6 | | |
| 2514 | B1 | 3062 | D6 | 3802 | E3 | 5936 | F6 | | |
| 2516 | B1 | 3068 | D5 | 3804 | E3 | 5938 | F6 | | |
| 2600 | E5 | 3070 | D6 | 3806 | F3 | 5940 | F6 | | |
| 2606 | E5 | 3074 | D6 | 3810 | F3 | 5942 | E6 | | |
| 2610 | E5 | 3076 | D6 | 3812 | F3 | 5944 | E6 | | |
| 2614 | D5 | 3078 | D6 | 3814 | E3 | 5955 | E6 | | |

1101 G4
2100 I3
2101 I6
5100 I3
5101 I6

# D 1 DRIVEBOARD INPUT

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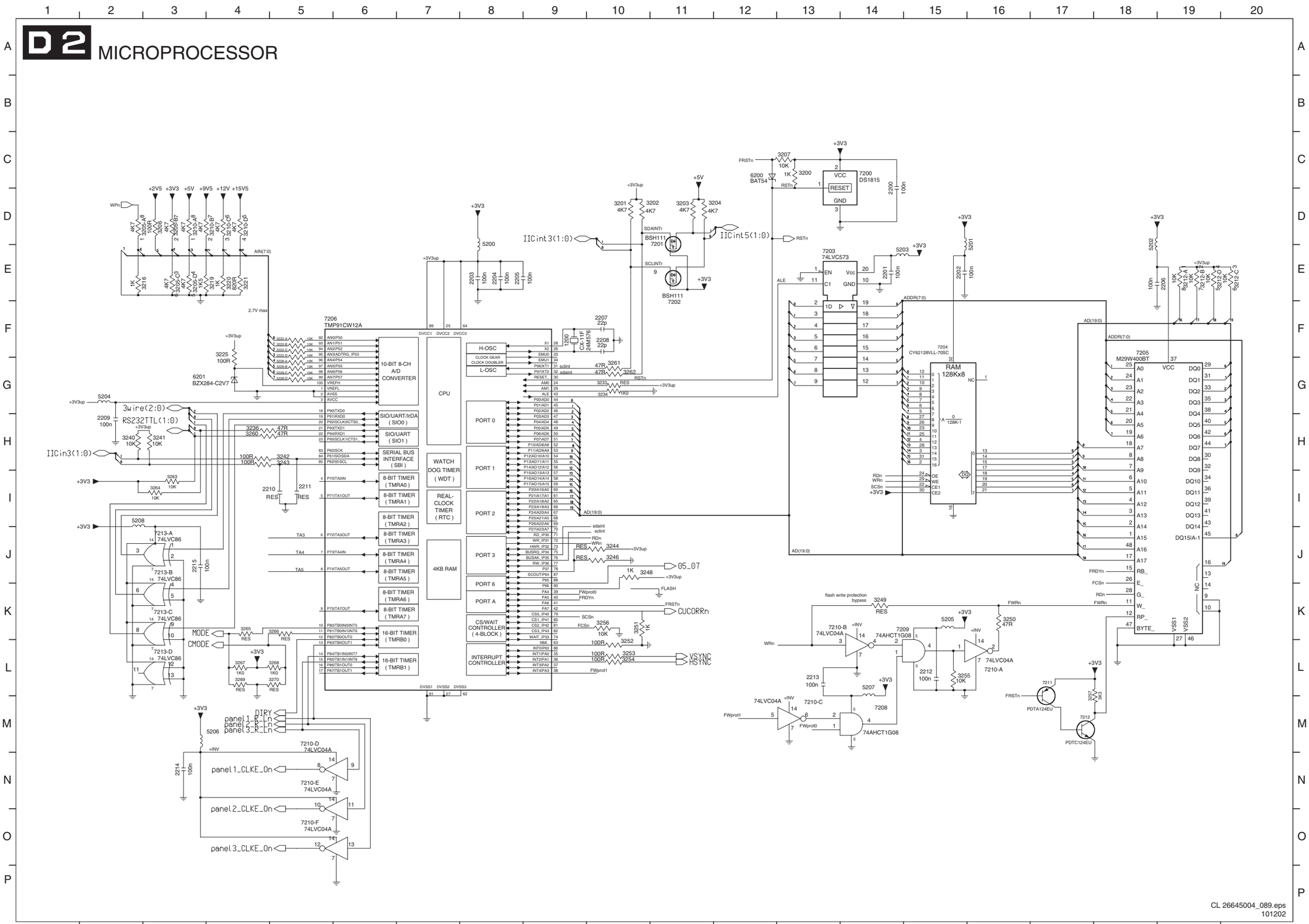
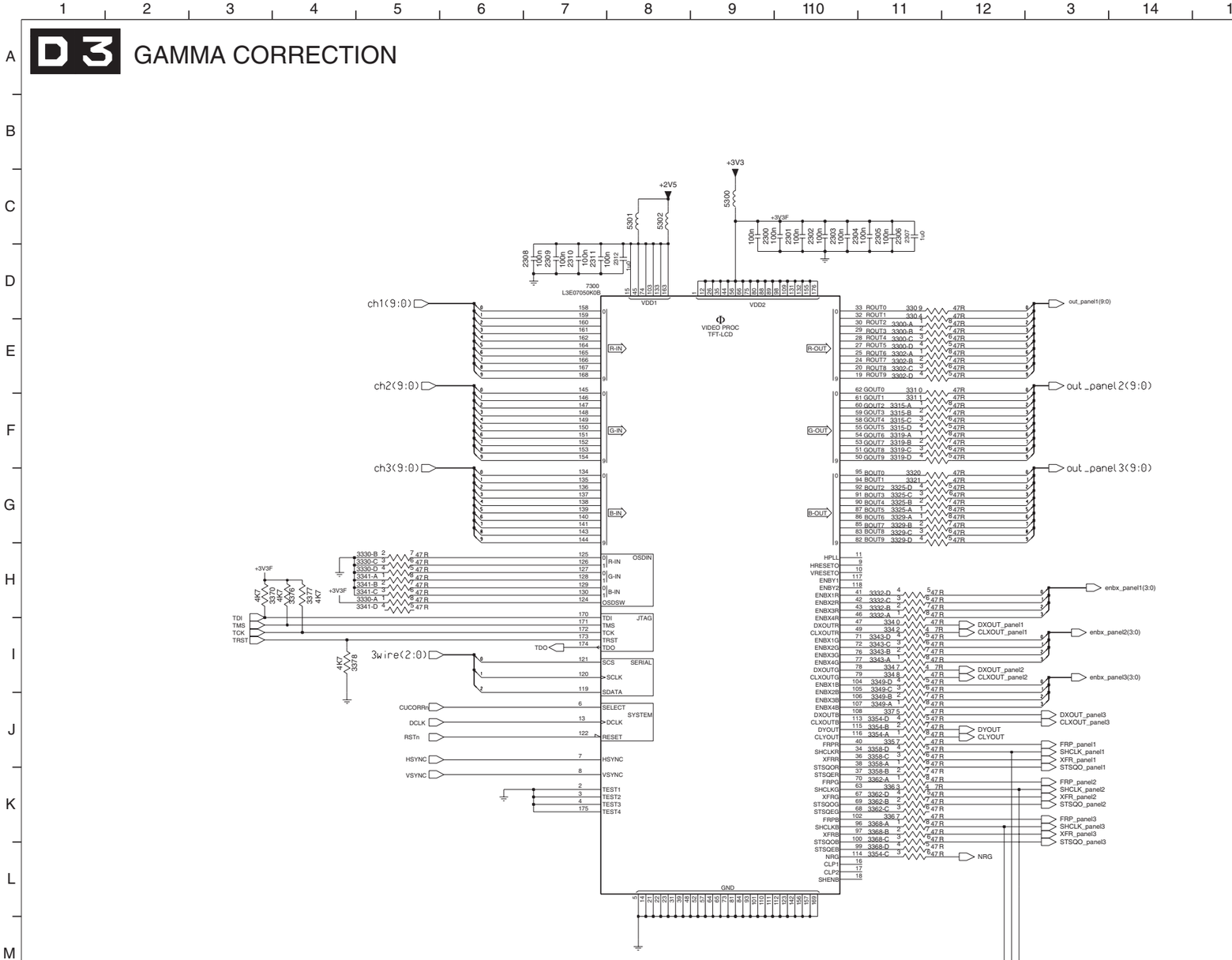
281102

# D2 MICROPROCESSOR




| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1200 | F9 | 3269 | L4 | | | |
| | 2200 | D14 | 3270 | L5 | | | |
| A | 2201 | E14 | 5200 | E8 | | | |
| | 2202 | E15 | 5201 | E15 | | | |
| | 2203 | E8 | 5202 | E18 | | | |
| | 2204 | E8 | 5203 | E14 | | | |
| | 2205 | E8 | 5204 | G2 | | | |
| B | 2206 | E18 | 5205 | K15 | | | |
| | 2207 | F10 | 5206 | M3 | | | |
| | 2208 | F10 | 5207 | M14 | | | |
| | 2209 | H2 | 5208 | J2 | | | |
| C | 2210 | I5 | 6200 | C12 | | | |
| | 2211 | I5 | 6201 | G4 | | | |
| | 2212 | L15 | 7200 | D13 | | | |
| | 2213 | L13 | 7201 | E11 | | | |
| | 2214 | N3 | 7202 | E11 | | | |
| D | 2215 | J3 | 7203 | F13 | | | |
| | 3200 | C13 | 7204 | H15 | | | |
| | 3201 | D10 | 7205 | I19 | | | |
| | 3202 | D10 | 7206 | I7 | | | |
| | 3203 | D11 | 7208 | M14 | | | |
| E | 3204 | D11 | 7209 | L15 | | | |
| | 3205-A | D2 | 7210-A | L16 | | | |
| | 3205-B | D3 | 7210-B | L14 | | | |
| | 3205-C | E3 | 7210-C | M13 | | | |
| | 3205-D | E3 | 7210-D | N6 | | | |
| F | 3206 | D3 | 7210-E | O6 | | | |
| | 3207 | C13 | 7210-F | O6 | | | |
| | 3210-A | D3 | 7211 | M17 | | | |
| | 3210-B | D3 | 7212 | M17 | | | |
| | 3210-C | D4 | 7213-A | J3 | | | |
| G | 3210-D | D4 | 7213-B | K3 | | | |
| | 3212-A | E19 | 7213-C | K3 | | | |
| | 3212-B | E19 | 7213-D | L3 | | | |
| | 3212-C | E20 | | | | | |
| | 3212-D | E19 | | | | | |
| H | 3216 | E2 | | | | | |
| | 3219 | E3 | | | | | |
| | 3220 | E4 | | | | | |
| | 3221 | E4 | | | | | |
| I | 3222-A | F5 | | | | | |
| | 3222-B | F5 | | | | | |
| | 3222-C | F5 | | | | | |
| | 3222-D | G5 | | | | | |
| | 3225 | G4 | | | | | |
| J | 3228-A | G5 | | | | | |
| | 3228-B | G5 | | | | | |
| | 3228-C | G5 | | | | | |
| | 3228-D | G5 | | | | | |
| | 3233 | G10 | | | | | |
| K | 3234 | G10 | | | | | |
| | 3236 | H4 | | | | | |
| | 3240 | H2 | | | | | |
| | 3241 | H3 | | | | | |
| | 3242 | H4 | | | | | |
| L | 3243 | H4 | | | | | |
| | 3244 | J10 | | | | | |
| | 3246 | J10 | | | | | |
| | 3248 | J10 | | | | | |
| | 3249 | K14 | | | | | |
| M | 3250 | K16 | | | | | |
| | 3251 | K10 | | | | | |
| | 3252 | L10 | | | | | |
| | 3253 | L10 | | | | | |
| | 3254 | L10 | | | | | |
| N | 3255 | L15 | | | | | |
| | 3256 | K10 | | | | | |
| | 3257 | M17 | | | | | |
| | 3260 | H4 | | | | | |
| O | 3261 | G10 | | | | | |
| | 3262 | G10 | | | | | |
| | 3263 | I3 | | | | | |
| | 3264 | I3 | | | | | |
| | 3265 | K4 | | | | | |
| P | 3266 | K5 | | | | | |
| | 3267 | L4 | | | | | |
| | 3268 | L5 | | | | | |

# D 3 GAMMA CORRECTION

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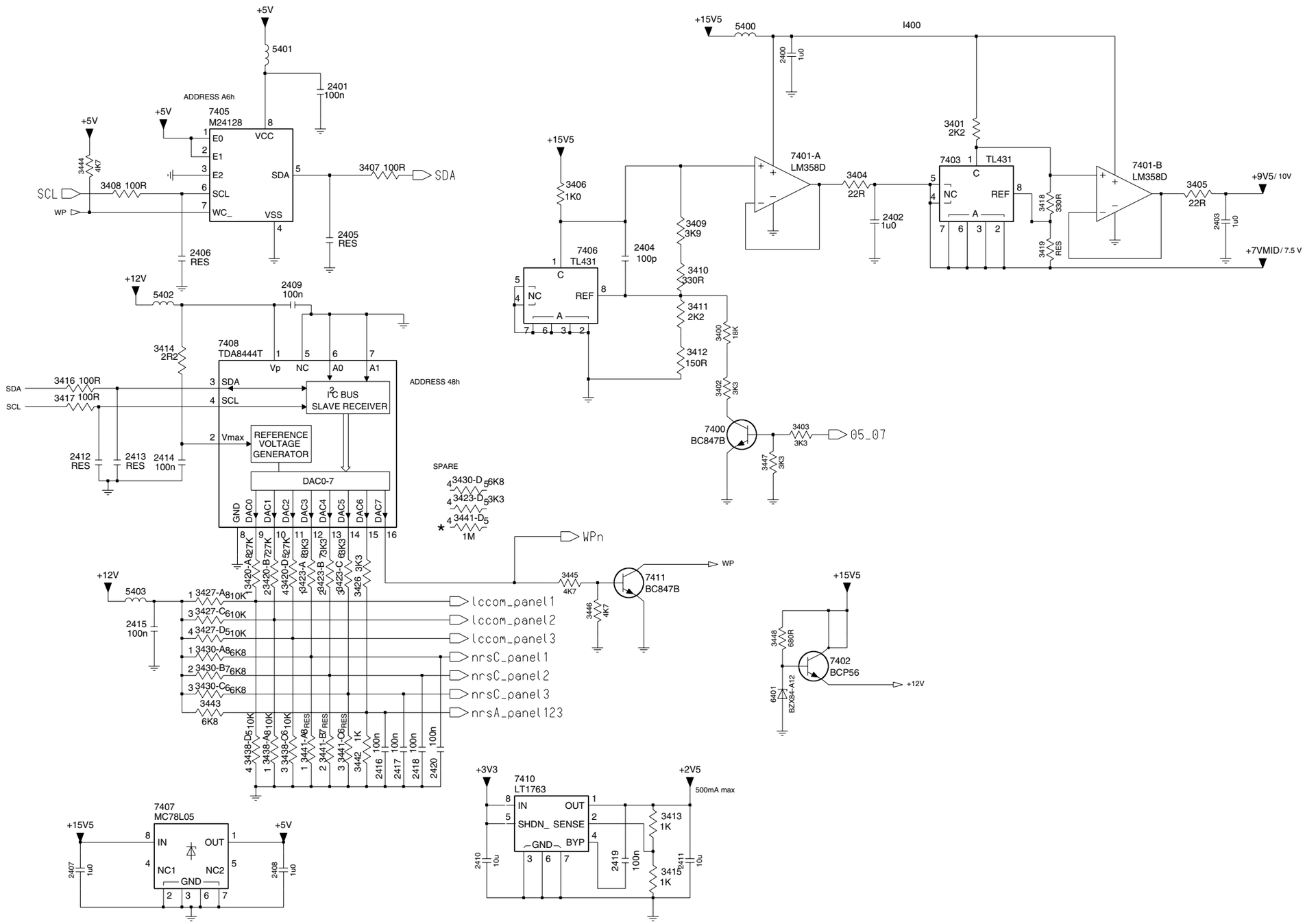
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2300 | C9 | 3362-A | K11 | 3330-A | H5 | 3358-A | K11 |
| 2301 | C10 | 3362-B | K11 | 3330-B | H5 | 3358-B | K11 |
| 2302 | C10 | 3362-C | K11 | 3330-C | H5 | 3358-C | J11 |
| 2303 | C10 | 3362-D | K11 | 3330-D | H5 | 3358-D | J11 |
| 2304 | C10 | 3363 | K11 | 3332-A | I11 | | |
| 2305 | C11 | 3367 | K11 | 3332-B | H11 | | |
| 2306 | C11 | 3368-A | K11 | 3332-C | H11 | | |
| 2307 | C11 | 3368-B | K11 | 3332-D | H11 | | |
| 2308 | D7 | 3368-C | L11 | 3340 | I11 | | |
| 2309 | D7 | 3368-D | L11 | 3341-A | H5 | | |
| 2310 | D7 | 3370 | H3 | 3341-B | H5 | | |
| 2311 | D7 | 3375 | J11 | 3341-C | H5 | | |
| 2312 | D8 | 3376 | H4 | 3341-D | H5 | | |
| 2313 | L15 | 3377 | H4 | 3342 | I11 | | |
| 3300-A | E11 | 3378 | I4 | 3343-A | I11 | | |
| 3300-B | E11 | 3379 | N13 | 3343-B | I11 | | |
| 3300-C | E11 | 3380 | N13 | 3343-C | I11 | | |
| 3300-D | E11 | 3381 | N13 | 3343-D | I11 | | |
| 3302-A | E11 | 3382 | L15 | 3347 | I11 | | |
| 3302-B | E11 | 3383 | M15 | 3348 | I11 | | |
| 3302-0 | E11 | 3384 | M15 | 3349-A | J11 | | |
| 3302-D | E11 | 5300 | C9 | 3349-B | J11 | | |
| 3304 | E11 | 5301 | C8 | 3349-C | J11 | | |
| 3309 | D11 | 5302 | C8 | 3349-D | I11 | | |
| 3310 | F11 | 5303 | L14 | 3354-A | J11 | | |
| 3311 | F11 | 7300 | H9 | 3354-B | J11 | | |
| 3315-A | F11 | 7301 | M14 | 3354-C | L11 | | |
| 3315-B | F11 | | | 3354-D | J11 | | |
| 3315-C | F11 | | | 3357 | J11 | | |
| 3315-D | F11 | | | | | | |
| 3319-A | F11 | | | | | | |
| 3319-B | F11 | | | | | | |
| 3319-C | F11 | | | | | | |
| 3319-D | F11 | | | | | | |
| 3320 | G11 | | | | | | |
| 3321 | G11 | | | | | | |
| 3325-A | G11 | | | | | | |
| 3325-B | G11 | | | | | | |
| 3325-C | G11 | | | | | | |
| 3325-D | G11 | | | | | | |
| 3329-A | G11 | | | | | | |
| 3329-B | G11 | | | | | | |
| 3329-C | G11 | | | | | | |
| 3329-D | H11 | | | | | | |

# D4 POWER SUPPLY/LCD CONTROL/PARAMETER EEPROM

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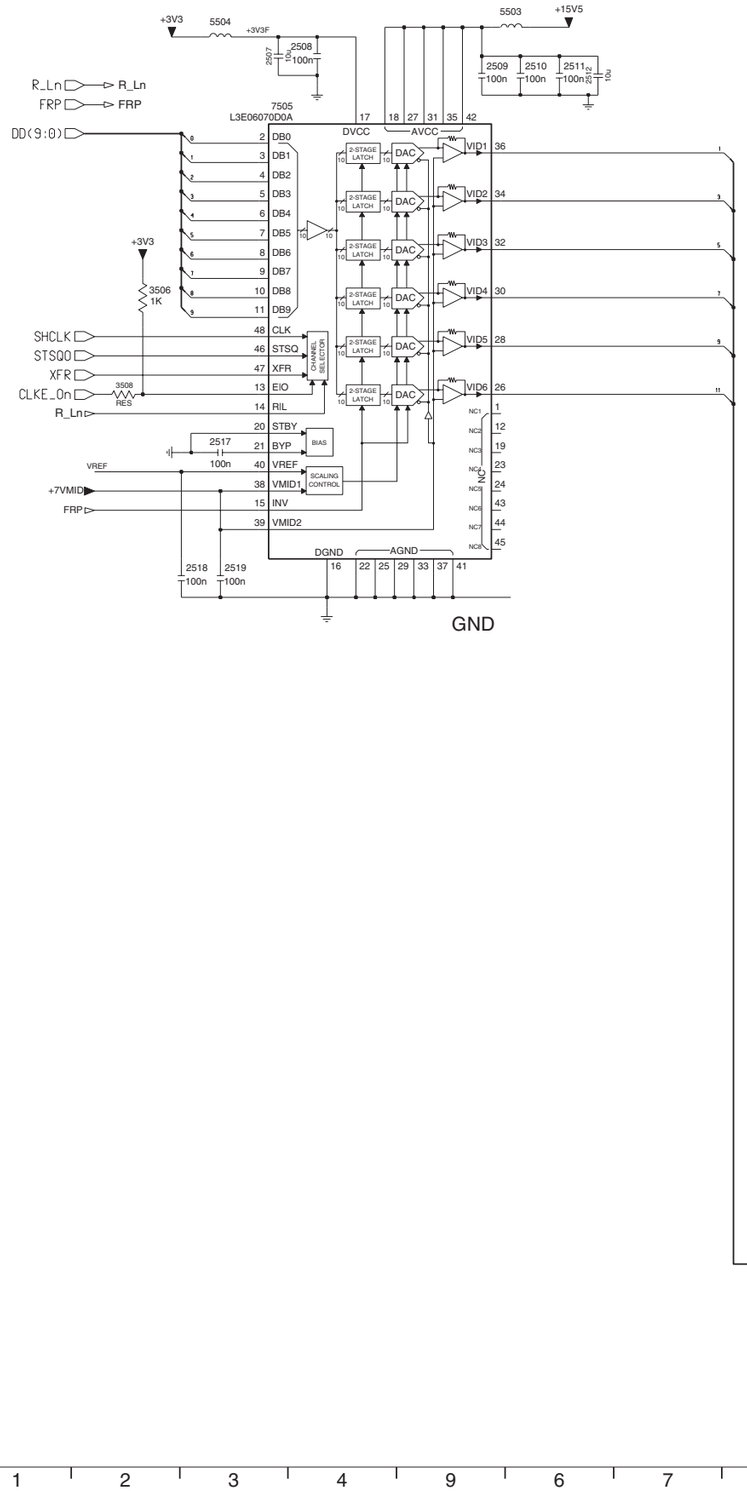
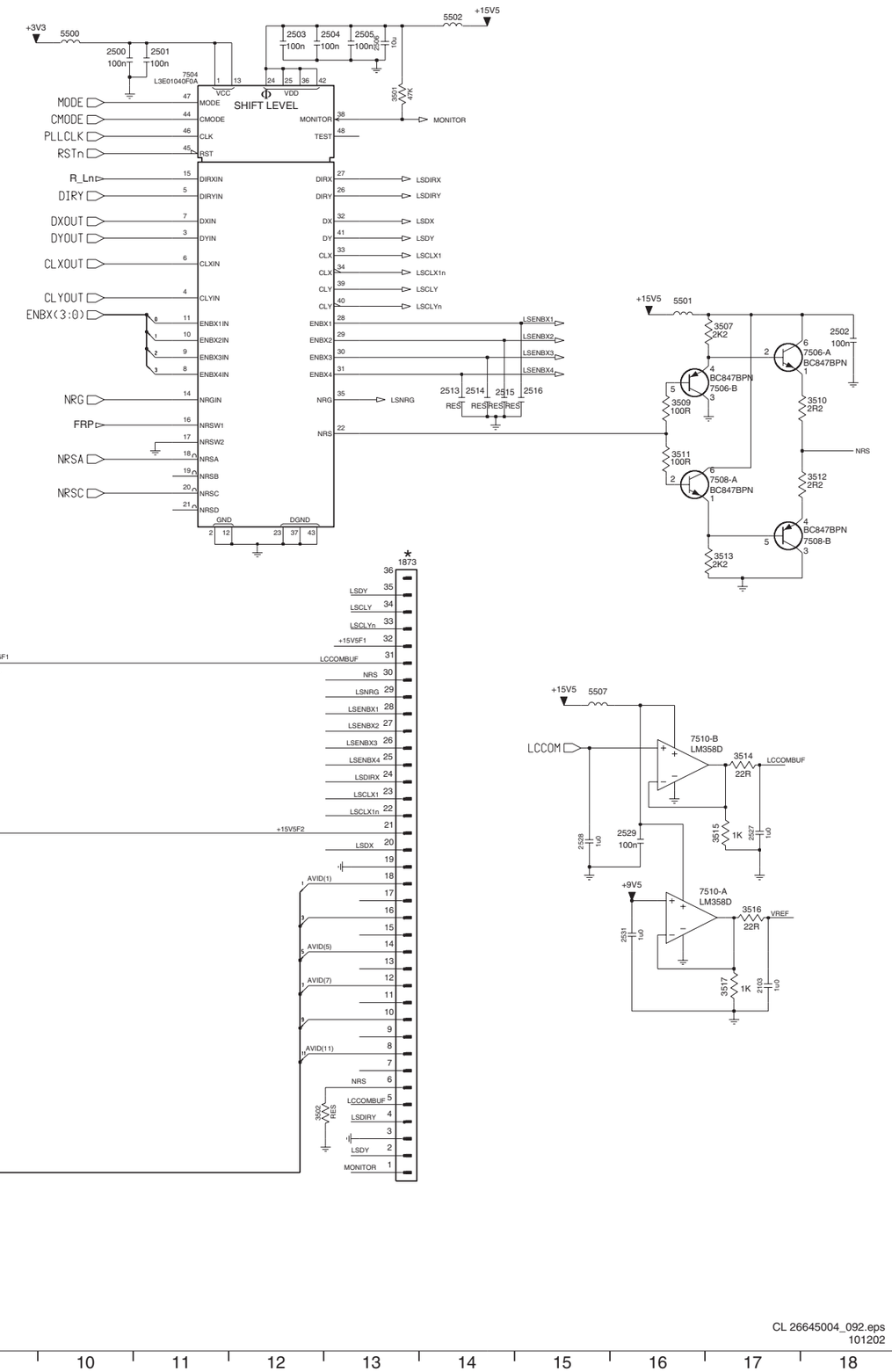
| | | | | | |
|---|---|---|---|---|---|
| 2400 | B8 | 7401-A | C8 | | |
| 2401 | B4 | 7401-B | C11 | | |
| 2402 | C9 | 7402 | H8 | | |
| 2403 | C12 | 7403 | C9 | | |
| 2404 | D6 | 7405 | C3 | | |
| 2405 | C4 | 7406 | D6 | | |
| 2406 | D2 | 7407 | J2 | | |
| 2407 | J1 | 7408 | E3 | | |
| 2408 | J3 | 7410 | I6 | | |
| 2409 | D3 | 7411 | G6 | | |
| 2410 | J5 | | | | |
| 2411 | J7 | | | | |
| 2412 | F2 | | | | |
| 2413 | F2 | | | | |
| 2414 | F2 | | | | |
| 2415 | G2 | | | | |
| 2416 | H4 | | | | |
| 2417 | H4 | | | | |
| 2418 | H4 | | | | |
| 2419 | J6 | | | | |
| 2420 | H5 | | | | |
| 3400 | D7 | | | | |
| 3401 | B9 | | | | |
| 3402 | E7 | | | | |
| 3403 | E8 | | | | |
| 3404 | C8 | | | | |
| 3405 | C11 | | | | |
| 3406 | C6 | | | | |
| 3407 | C4 | | | | |
| 3408 | C2 | | | | |
| 3409 | C7 | | | | |
| 3410 | D7 | | | | |
| 3411 | D7 | | | | |
| 3412 | E7 | | | | |
| 3413 | I7 | | | | |
| 3414 | E2 | | | | |
| 3415 | J7 | | | | |
| 3416 | E1 | | | | |
| 3417 | E1 | | | | |
| 3418 | C10 | | | | |
| 3419 | D10 | | | | |
| 342Q-A | G3 | | | | |
| 3420-B | G3 | | | | |
| 3420-D | G3 | | | | |
| 3423-A | G3 | | | | |
| 3423-B | G4 | | | | |
| 3423-0 | G4 | | | | |
| 3423-D | F5 | | | | |
| 3426 | G4 | | | | |
| 3427-A | G3 | | | | |
| 3427-0 | G3 | | | | |
| 3427-D | G3 | | | | |
| 343O-A | H3 | | | | |
| 3430-B | H3 | | | | |
| 3430oC | H3 | | | | |
| 3430-D | F5 | | | | |
| 3438-A | H3 | | | | |
| 3438-C | H3 | | | | |
| 3438-D | H3 | | | | |
| 3441-A | H3 | | | | |
| 3441-B | H4 | | | | |
| 3441-C | H4 | | | | |
| 3441-D | F5 | | | | |
| 3442 | H4 | | | | |
| 3443 | H3 | | | | |
| 3444 | C1 | | | | |
| 3445 | G6 | | | | |
| 3446 | G6 | | | | |
| 3447 | F8 | | | | |
| 3448 | G8 | | | | |
| 5400 | A7 | | | | |
| 5401 | B3 | | | | |
| 5402 | D2 | | | | |
| 5403 | G2 | | | | |
| 6401 | H8 | | | | |
| 7400 | E7 | | | | |

# D 5 LCD DRIVE RED













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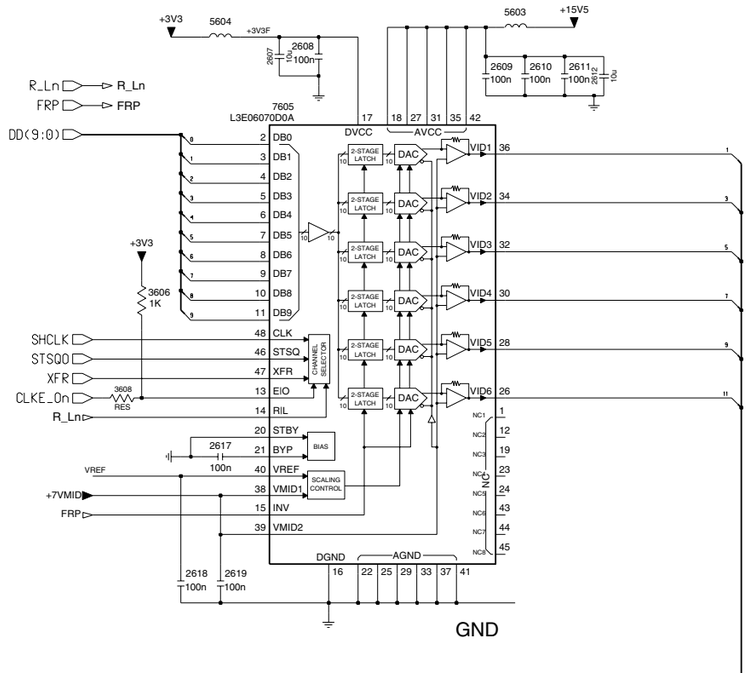
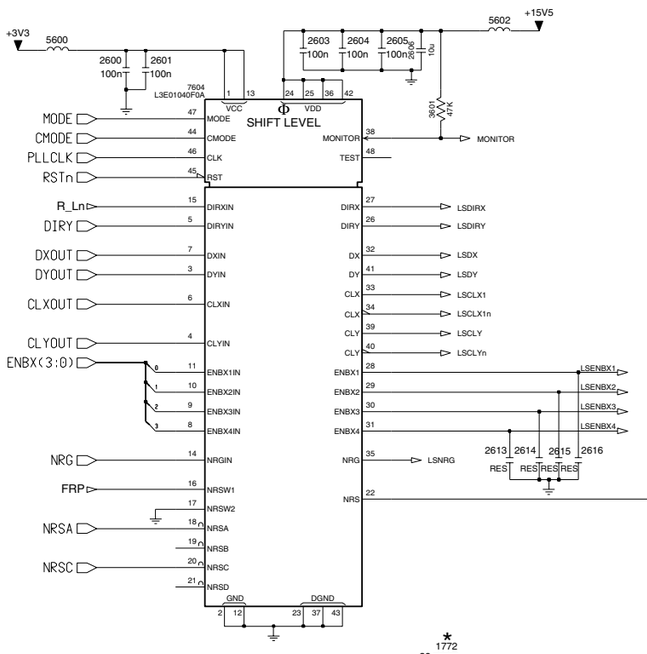
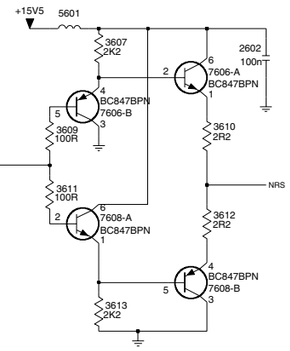
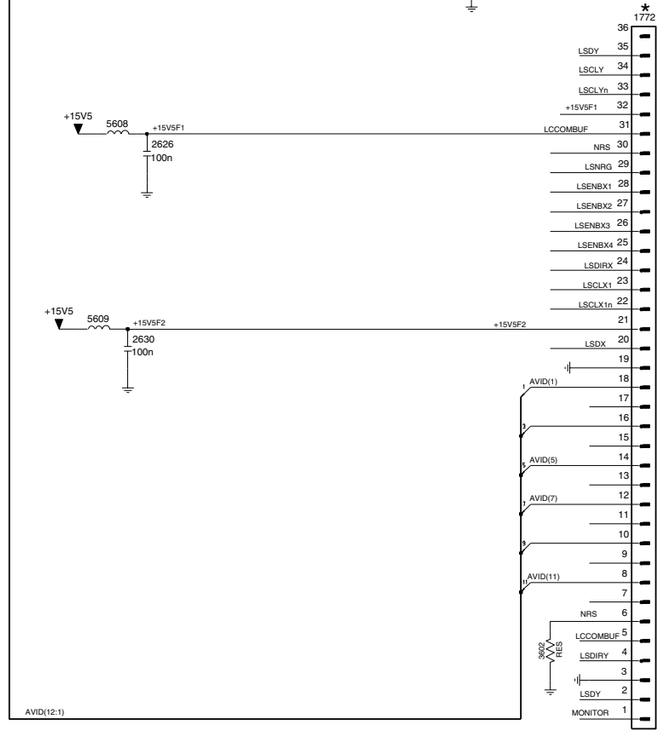
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1670 | K11 | 2717 | F8 | 7505 | E4 | | |
| 1671 | K13 | 2718 | G3 | 7506-A | E17 | | |
| 1771 | K11 | 2719 | G3 | 7506-B | E16 | | |
| 1772 | K13 | 2726 | I9 | 7508-A | F16 | | |
| 1872 | K11 | 2727 | J17 | 7508-B | G17 | | |
| 1873 | K13 | 2728 | K15 | 7510-A | K16 | | |
| 2103 | L17 | 2729 | K16 | 7510-B | J16 | | |
| 2500 | A10 | 2730 | K9 | 7604 | D12 | | |
| 2501 | A11 | 2731 | L16 | 7605 | E4 | | |
| 2502 | E18 | 2732 | L17 | 7606-A | E17 | | |
| 2503 | A12 | 3501 | B13 | 7606-B | E16 | | |
| 2504 | A12 | 3502 | N12 | 7608-A | F16 | | |
| 2505 | A13 | 3506 | D2 | 7608-B | G17 | | |
| 2506 | A13 | 3507 | E16 | 7610-A | K16 | | |
| 2507 | B3 | 3508 | E2 | 7610-B | J16 | | |
| 2508 | B4 | 3509 | E16 | 7704 | D12 | | |
| 2509 | B5 | 3510 | E17 | 7705 | E4 | | |
| 2510 | B6 | 3511 | F16 | 7706-A | E17 | | |
| 2511 | B6 | 3512 | F17 | 7706-B | E16 | | |
| 2512 | B6 | 3513 | G16 | 7708-A | F16 | | |
| 2513 | E14 | 3514 | J17 | 7708-B | G17 | | |
| 2514 | E14 | 3515 | J17 | 7710-A | K16 | | |
| 2515 | E14 | 3516 | K17 | 7710-B | J16 | | |
| 2516 | E14 | 3517 | L17 | | | | |
| 2517 | F3 | 3601 | B13 | | | | |
| 2518 | G3 | 3602 | N12 | | | | |
| 2519 | G3 | 3606 | D2 | | | | |
| 2526 | I9 | 3607 | E16 | | | | |
| 2527 | J17 | 3608 | E2 | | | | |
| 2528 | K15 | 3609 | E16 | | | | |
| 2529 | K16 | 3610 | E17 | | | | |
| 2530 | K9 | 3611 | F16 | | | | |
| 2531 | L16 | 3612 | F17 | | | | |
| 2600 | A10 | 3613 | G16 | | | | |
| 2601 | A11 | 3614 | J17 | | | | |
| 2602 | E18 | 3615 | J17 | | | | |
| 2603 | A12 | 3616 | K17 | | | | |
| 2604 | A12 | 3617 | L17 | | | | |
| 2605 | A13 | 3701 | B13 | | | | |
| 2606 | A13 | 3702 | N12 | | | | |
| 2607 | B3 | 3706 | D2 | | | | |
| 2608 | B4 | 3707 | E16 | | | | |
| 2609 | B5 | 3708 | E2 | | | | |
| 2610 | B6 | 3709 | E16 | | | | |
| 2611 | B6 | 3710 | E17 | | | | |
| 2612 | B6 | 3711 | F16 | | | | |
| 2613 | E14 | 3712 | F17 | | | | |
| 2614 | E14 | 3713 | G16 | | | | |
| 2615 | E14 | 3714 | J17 | | | | |
| 2616 | E14 | 3715 | J17 | | | | |
| 2617 | F3 | 3716 | K17 | | | | |
| 2618 | G3 | 3717 | L17 | | | | |
| 2619 | G3 | 5500 | A10 | | | | |
| 2626 | I9 | 5501 | D16 | | | | |
| 2627 | J17 | 5502 | A14 | | | | |
| 2628 | K15 | 5503 | B6 | | | | |
| 2629 | K16 | 5504 | B3 | | | | |
| 2630 | K9 | 5507 | I15 | | | | |
| 2631 | L16 | 5508 | I9 | | | | |
| 2632 | L17 | 5509 | K8 | | | | |
| 2700 | A10 | 5600 | A10 | | | | |
| 2701 | A11 | 5601 | D16 | | | | |
| 2702 | E18 | 5602 | A14 | | | | |
| 2703 | A12 | 5603 | B6 | | | | |
| 2704 | A12 | 5604 | B3 | | | | |
| 2705 | A13 | 5607 | I15 | | | | |
| 2706 | A13 | 5608 | I9 | | | | |
| 2707 | B3 | 5609 | K8 | | | | |
| 2708 | B4 | 5700 | A10 | | | | |
| 2709 | B5 | 5701 | D16 | | | | |
| 2710 | B6 | 5702 | A14 | | | | |
| 2711 | B6 | 5703 | B6 | | | | |
| 2712 | B6 | 5704 | B3 | | | | |
| 2718 | E14 | 5707 | I15 | | | | |
| 2714 | E14 | 5708 | I9 | | | | |
| 2715 | E14 | 5709 | K8 | | | | |
| 2716 | E14 | 7504 | D12 | | | | |

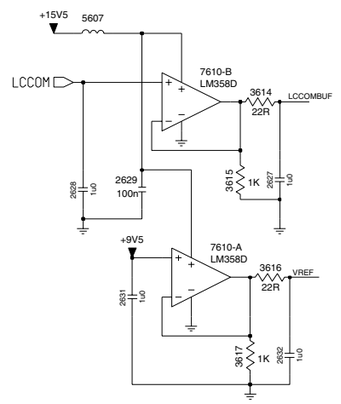
# D 6 LCD DRIVE

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|---|---|---|
| 1771 | H11 | |
| 1772 | G13 | |
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| 2602 | E18 | |
| 2603 | A12 | |
| 2604 | A13 | |
| 2605 | A13 | |
| 2607 | B3 | |
| 2608 | B4 | |
| 2609 | B5 | |
| 2610 | B6 | |
| 2611 | B6 | |
| 2613 | E14 | |
| 2614 | E14 | |
| 2614 | E14 | |
| 2615 | E15 | |
| 2617 | F3 | |
| 2618 | G3 | |
| 2619 | G3 | |
| 2626 | I9 | |
| 2627 | J17 | |
| 2628 | J15 | |
| 2629 | J16 | |
| 2630 | K9 | |
| 2631 | J15 | |
| 2632 | L17 | |
| 3601 | B13 | |
| 3606 | D2 | |
| 3607 | D17 | |
| 3608 | E2 | |
| 3609 | E16 | |
| 3610 | E18 | |
| 3611 | E16 | |
| 3612 | F18 | |
| 3613 | G17 | |
| 3614 | I17 | |
| 3615 | J17 | |
| 3616 | K17 | |
| 3617 | L17 | |
| 5600 | A10 | |
| 5601 | D16 | |
| 5602 | A14 | |
| 5603 | B6 | |
| 5604 | B3 | |
| 5607 | I15 | |
| 5608 | I9 | |
| 5609 | K8 | |
| 7604 | B11 | |
| 7605 | B3 | |
| 7606-B | E17 | |
| 7606-A | E18 | |
| 7608-B | G18 | |
| 7608-A | F17 | |
| 7610-B | I16 | |
| 7610-A | K17 | |

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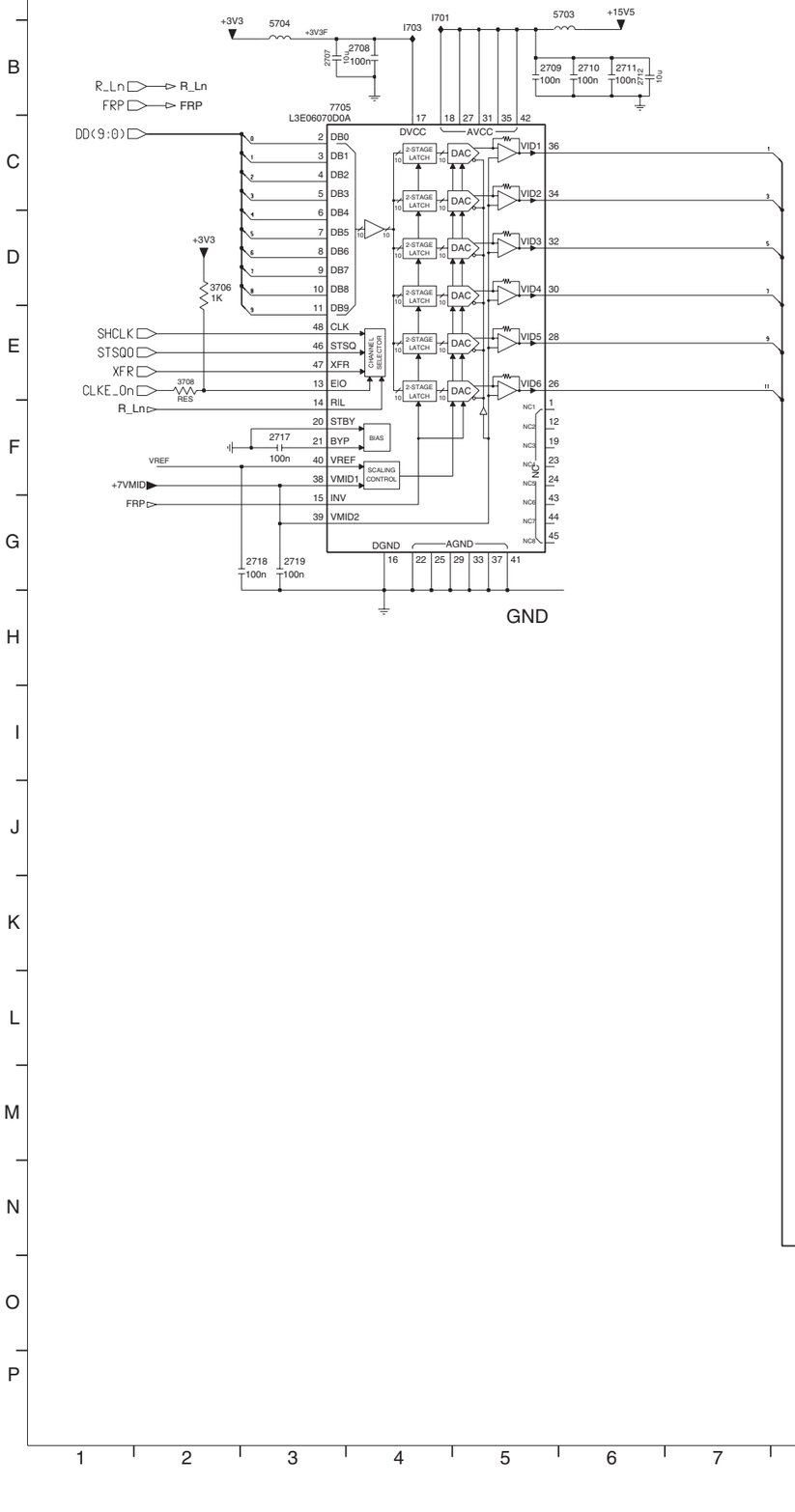
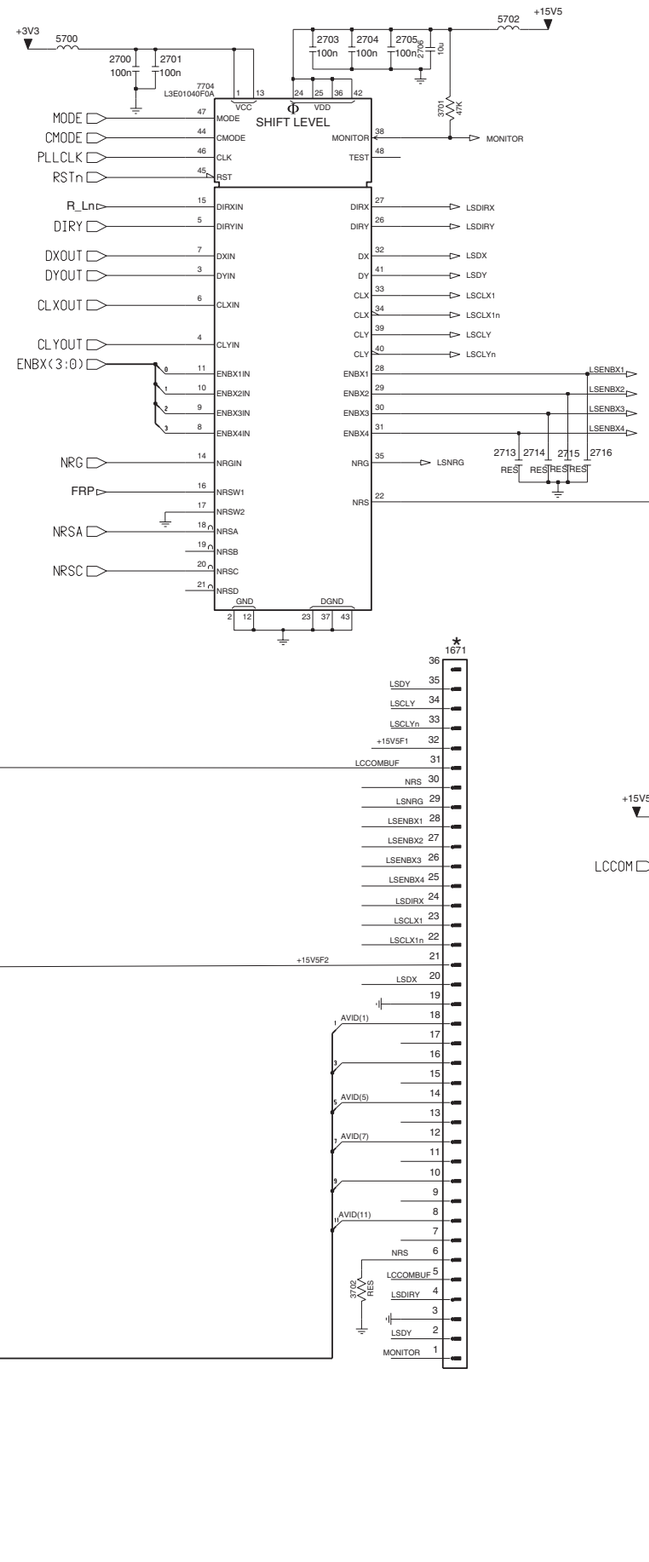
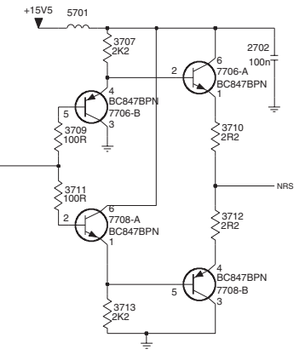
101202

# D 7 LCD DRIVE

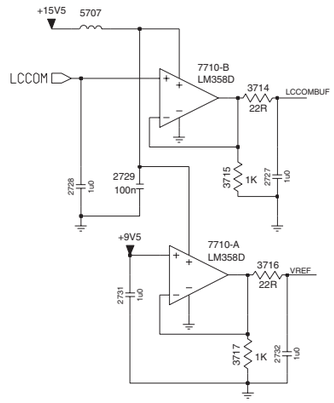






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| | |
|---|---|
| 1670 | H11 |
| 1671 | G13 |
| 2700 | A10 |
| 2701 | A11 |
| 2702 | D18 |
| 2703 | A12 |
| 2704 | A13 |
| 2705 | A13 |
| 2706 | A13 |
| 2707 | B3 |
| 2708 | B4 |
| 2709 | B5 |
| 2710 | B6 |
| 2711 | B6 |
| 2712 | B6 |
| 2713 | E14 |
| 2714 | E14 |
| 2715 | E14 |
| 2716 | E15 |
| 2717 | F3 |
| 2718 | G3 |
| 2719 | G3 |
| 2726 | I9 |
| 2727 | J17 |
| 2728 | J15 |
| 2729 | J16 |
| 2730 | K9 |
| 2731 | L16 |
| 2732 | L17 |
| 3701 | B13 |
| 3702 | N13 |
| 3706 | D2 |
| 3707 | D17 |
| 3708 | E2 |
| 3709 | E16 |
| 3710 | E18 |
| 3711 | F16 |
| 3712 | F18 |
| 3713 | G17 |
| 3714 | J17 |
| 3715 | J17 |
| 3716 | K17 |
| 3717 | L17 |
| 5700 | A10 |
| 5701 | D16 |
| 5702 | A14 |
| 5703 | A6 |
| 5704 | B3 |
| 5707 | I15 |
| 5708 | I9 |
| 5709 | K9 |
| 7704 | B11 |
| 7705 | B4 |
| 7706-A | E18 |
| 7706-B | E17 |
| 7708-A | F17 |
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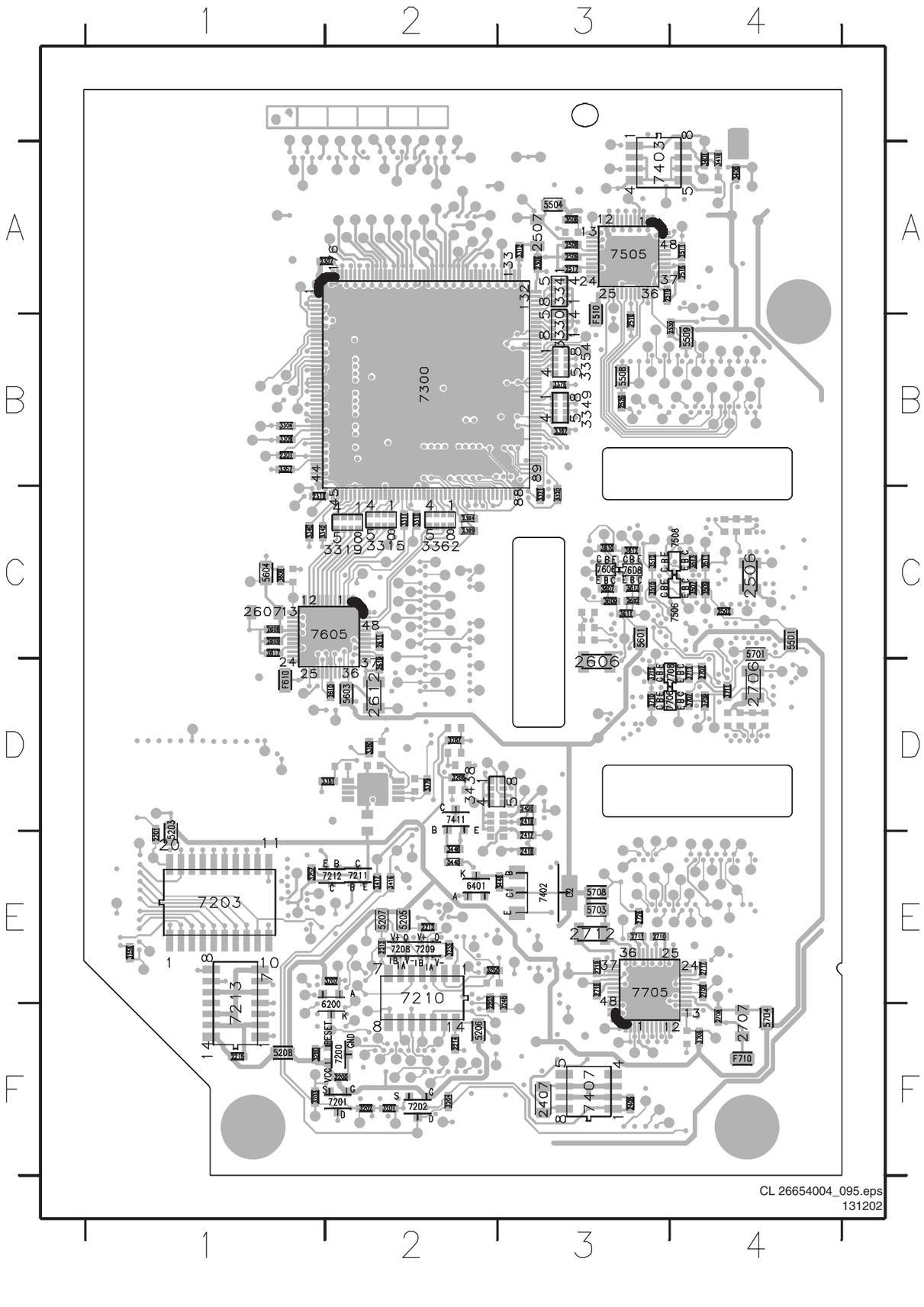


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| 2201 | E1 | 3248 | E3 | 3713 | D4 |
| 2203 | E2 | 3249 | E2 | 5203 | D1 |
| 2212 | E2 | 3250 | E2 | 5205 | E2 |
| 2213 | E2 | 3255 | E2 | 5206 | F2 |
| 2214 | F2 | 3256 | E1 | 5207 | E2 |
| 2215 | F1 | 3257 | E1 | 5208 | F1 |
| 2301 | B1 | 3265 | D2 | 5303 | D2 |
| 2304 | C2 | 3266 | D2 | 5501 | C4 |
| 2306 | A3 | 3267 | D2 | 5504 | A3 |
| 2307 | A2 | 3268 | D2 | 5508 | B3 |
| 2309 | C2 | 3269 | D2 | 5509 | B4 |
| 2310 | C1 | 3270 | D2 | 5601 | C3 |
| 2312 | A3 | 3304 | B1 | 5603 | D2 |
| 2313 | D2 | 3309 | B1 | 5604 | C1 |
| 2407 | F3 | 3310 | C2 | 5701 | C4 |
| 2408 | F3 | 3311 | C2 | 5703 | E3 |
| 2416 | E3 | 3315 | C2 | 5704 | F4 |
| 2417 | E3 | 3319 | C2 | 5708 | E3 |
| 2418 | D3 | 3320 | C3 | 6200 | F2 |
| 2420 | D3 | 3321 | C3 | 6401 | E2 |
| 2502 | C4 | 3330 | B3 | 7200 | F2 |
| 2506 | C4 | 3340 | C1 | 7201 | F2 |
| 2507 | A3 | 3341 | A3 | 7202 | F2 |
| 2508 | A3 | 3342 | C1 | 7203 | E1 |
| 2509 | A3 | 3349 | B3 | 7208 | E2 |
| 2510 | B3 | 3354 | B3 | 7209 | E2 |
| 2511 | A4 | 3357 | B1 | 7210 | E2 |
| 2513 | C4 | 3362 | C2 | 7211 | E2 |
| 2514 | C4 | 3367 | B3 | 7212 | E2 |
| 2515 | C4 | 3375 | B3 | 7213 | E1 |
| 2517 | A3 | 3379 | D2 | 7300 | B2 |
| 2518 | A4 | 3380 | D2 | 7301 | D2 |
| 2519 | A3 | 3381 | D2 | 7402 | E3 |
| 2526 | B3 | 3382 | D2 | 7403 | A3 |
| 2530 | B4 | 3383 | D2 | 7407 | F3 |
| 2602 | C3 | 3384 | D2 | 7411 | D2 |
| 2606 | D3 | 3401 | A4 | 7505 | A3 |
| 2607 | C1 | 3406 | A4 | 7506 | C4 |
| 2608 | C1 | 3416 | E2 | 7508 | C4 |
| 2609 | C1 | 3417 | E2 | 7605 | C2 |
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| 2611 | C2 | 3419 | A4 | 7608 | C3 |
| 2612 | D2 | 3438 | D2 | 7705 | E3 |
| 2613 | C3 | 3441 | E2 | 7706 | D3 |
| 2614 | C3 | 3445 | E2 | 7708 | D4 |
| 2615 | C3 | 3446 | E2 | | |
| 2617 | C1 | 3448 | E3 | | |
| 2619 | D2 | 3506 | A3 | | |
| 2702 | D4 | 3507 | C4 | | |
| 2706 | D4 | 3508 | A3 | | |
| 2707 | F4 | 3509 | C4 | | |
| 2708 | F4 | 3510 | C3 | | |
| 2709 | E4 | 3511 | C4 | | |
| 2710 | E3 | 3512 | C3 | | |
| 2711 | E3 | 3513 | C4 | | |
| 2712 | E3 | 3606 | C1 | | |
| 2713 | D4 | 3607 | C3 | | |
| 2714 | D4 | 3608 | C1 | | |
| 2715 | D4 | 3609 | C3 | | |
| 2716 | D4 | 3610 | C3 | | |
| 2717 | E4 | 3611 | C3 | | |
| 2718 | E3 | 3612 | C3 | | |
| 2719 | E3 | 3613 | C3 | | |
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| 3201 | F2 | 3708 | F4 | | |
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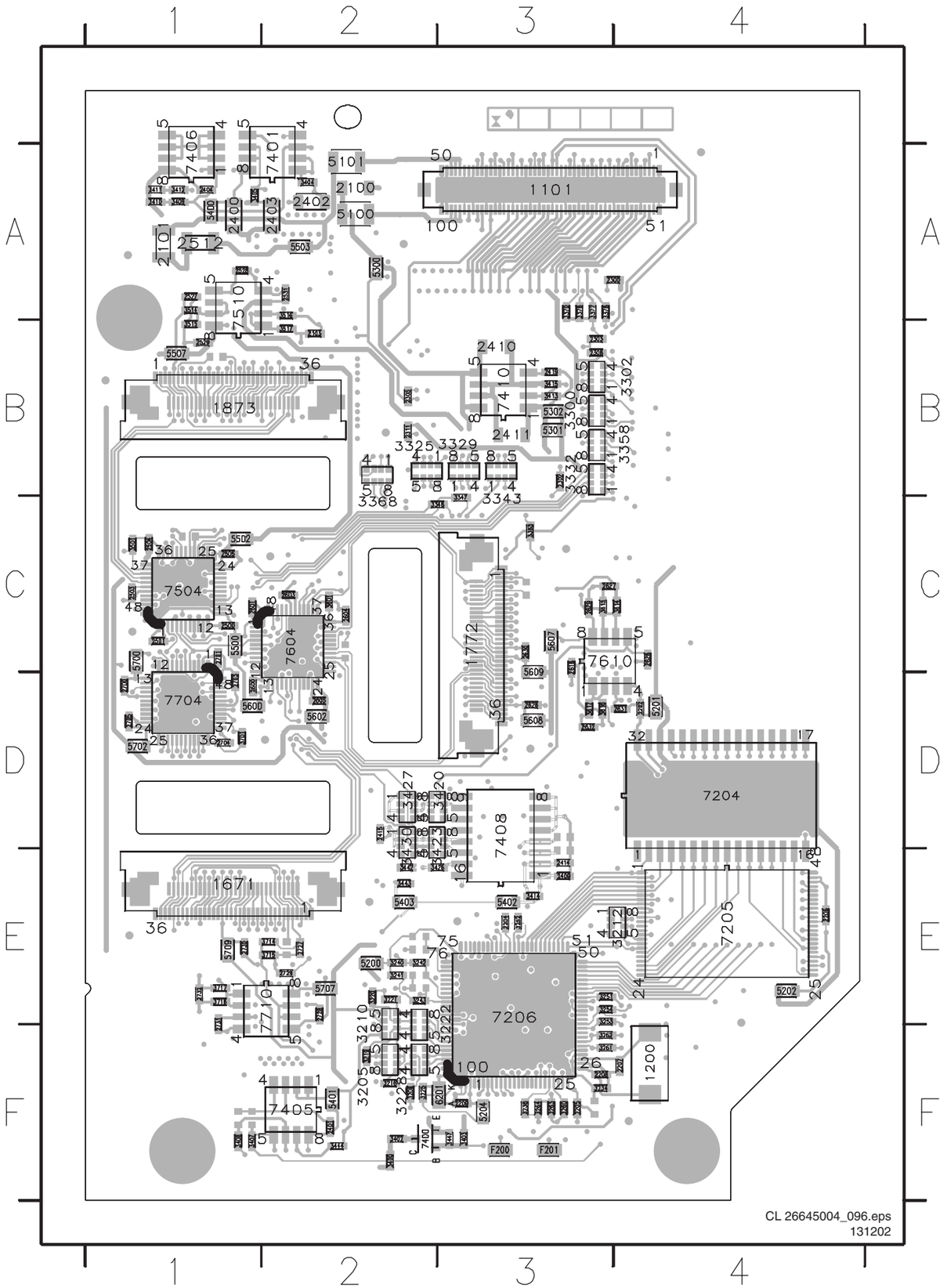
| 3204 | F2 | 3711 | D4 | | |




| | | | | | |
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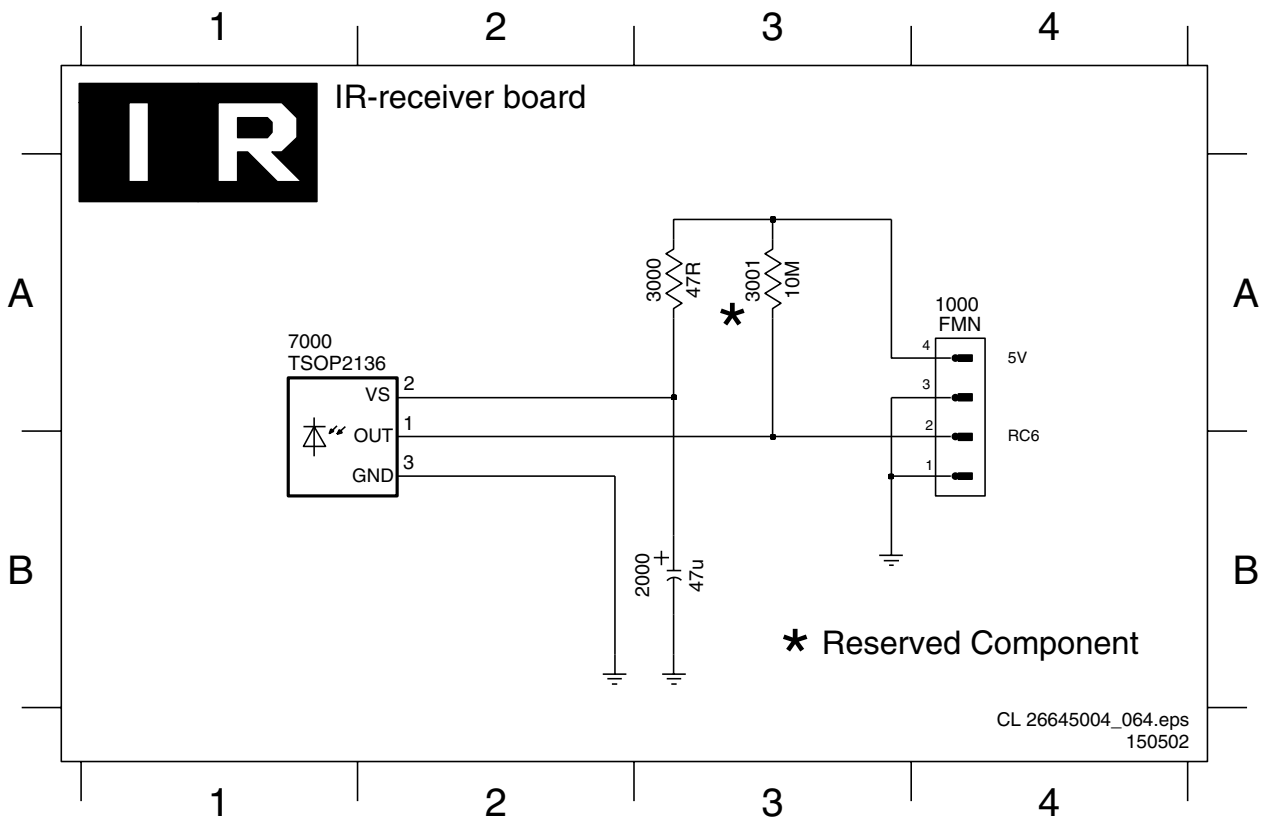
| 1200 | F4 | 2727 | E2 | 3443 | E2 |
| 1670 | E1 | 2728 | E2 | 3444 | F2 |
| 1671 | E1 | 2729 | E2 | 3447 | F3 |
| 1771 | C3 | 2730 | E1 | 3501 | C1 |
| 1772 | C3 | 2731 | E1 | 3502 | B1 |
| 1872 | B1 | 2732 | E1 | 3514 | A1 |
| 1873 | B1 | 3205 | F2 | 3515 | B1 |
| 2100 | A2 | 3206 | F2 | 3516 | A2 |
| 2101 | A1 | 3210 | E2 | 3517 | B2 |
| 2103 | B2 | 3212 | E4 | 3601 | C2 |
| 2202 | D4 | 3216 | F2 | 3602 | C3 |
| 2204 | E3 | 3219 | F2 | 3614 | C4 |
| 2205 | F3 | 3220 | E2 | 3615 | C3 |
| 2206 | E4 | 3221 | E2 | 3616 | D3 |
| 2207 | F4 | 3222 | F3 | 3617 | D3 |
| 2208 | F3 | 3225 | F2 | 3701 | D1 |
| 2209 | F3 | 3228 | F2 | 3702 | E2 |
| 2210 | E2 | 3233 | F3 | 3714 | E2 |
| 2211 | E2 | 3234 | F3 | 3715 | E2 |
| 2300 | A4 | 3236 | F3 | 3716 | E1 |
| 2302 | B3 | 3240 | E2 | 3717 | E1 |
| 2303 | B3 | 3241 | E2 | 5100 | A2 |
| 2305 | B2 | 3242 | E2 | 5101 | A2 |
| 2308 | B3 | 3243 | E2 | 5200 | E2 |
| 2311 | B2 | 3244 | E2 | 5201 | D4 |
| 2400 | A1 | 3246 | E2 | 5202 | E4 |
| 2401 | F2 | 3251 | E3 | 5204 | F3 |
| 2402 | A2 | 3252 | E3 | 5300 | A2 |
| 2403 | A2 | 3253 | E3 | 5301 | B3 |
| 2404 | A1 | 3254 | E3 | 5302 | B3 |
| 2405 | F1 | 3260 | F3 | 5400 | A1 |
| 2406 | F1 | 3261 | F3 | 5401 | F2 |
| 2409 | E3 | 3262 | F3 | 5402 | E3 |
| 2410 | B3 | 3263 | F3 | 5403 | E2 |
| 2411 | B3 | 3264 | F3 | 5500 | C1 |
| 2412 | D3 | 3300 | B3 | 5502 | C1 |
| 2413 | E3 | 3302 | B4 | 5503 | A2 |
| 2414 | E3 | 3325 | B2 | 5507 | B1 |
| 2415 | D2 | 3329 | B3 | 5600 | D1 |
| 2419 | B3 | 3332 | B3 | 5602 | D2 |
| 2500 | C1 | 3343 | C3 | 5607 | C3 |
| 2501 | C1 | 3347 | C3 | 5608 | D3 |
| 2503 | C1 | 3348 | C3 | 5609 | C3 |
| 2504 | C1 | 3358 | B4 | 5700 | C1 |
| 2505 | C1 | 3363 | C3 | 5702 | D1 |
| 2512 | A1 | 3368 | C2 | 5707 | E2 |
| 2516 | C1 | 3370 | A3 | 5709 | E1 |
| 2527 | A1 | 3376 | A3 | 6201 | F3 |
| 2528 | A1 | 3377 | A3 | 7204 | D4 |
| 2529 | B1 | 3378 | A3 | 7205 | E4 |
| 2531 | A2 | 3400 | F2 | 7206 | E3 |
| 2600 | D1 | 3402 | F2 | 7400 | F2 |
| 2601 | C1 | 3403 | F3 | 7401 | A2 |
| 2603 | C2 | 3404 | A2 | 7405 | F2 |
| 2604 | C2 | 3405 | A1 | 7406 | A1 |
| 2605 | D2 | 3407 | F1 | 7408 | D3 |
| 2616 | C2 | 3408 | F1 | 7410 | B3 |
| 2618 | C3 | 3409 | A1 | 7504 | C1 |
| 2626 | D3 | 3410 | A1 | 7510 | A1 |
| 2627 | C3 | 3411 | A1 | 7604 | C2 |
| 2628 | C4 | 3412 | A1 | 7610 | C3 |
| 2629 | C3 | 3413 | B3 | 7704 | D1 |
| 2630 | C3 | 3414 | E3 | 7710 | E2 |
| 2631 | D4 | 3415 | B3 | | |
| 2632 | D3 | 3420 | D3 | | |
| 2700 | D1 | 3423 | D2 | | |
| 2701 | C1 | 3426 | E3 | | |
| 2703 | D1 | 3427 | D2 | | |
| 2704 | D1 | 3430 | D2 | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1006 E3 | 1020 B1 | 3001 A2 | 1001 D3 | 3013 B8 | 3018 C10 | 6002 B10 | 7004 A5 | 3008 B5 | 3012 B10 |
| 1007 E2 | 1021 A1 | 3002 A10 | 1002 D2 | 3014 B8 | 5000 A2 | 6003 A8 | 7005 B9 | 7008 C9 | 7006 B9 |
| 1008 E3 | 2000 A3 | 3003 B2 | 1003 D3 | 3015 B10 | 5001 B5 | 7000 A2 | 3005 A8 | 3009 B8 | 7007 C9 |
| 1009 E3 | 2001 B5 | 3004 C2 | 1004 D3 | 3016 B8 | 6000 C10 | 7001 A9 | 3006 A10 | 3010 B8 | |
| 1010 E2 | 3000 A2 | 1000 D2 | 1005 E2 | 3017 C10 | 6001 A10 | 7003 B9 | 3007 B5 | 3011 B8 | |

1000 A4
2000 B3
3000 A3
3001 A3
7000 A1



# **Philips** Home Cinema Projector
# *Garbo Matchline*


true 16:9 experience

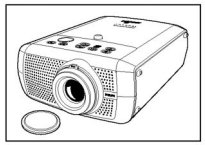
## English User guide

## 1. Introduction

Congratulations on your purchase of one of the most sophisticated and reliable products on the market today. We are sure that, used properly, it will bring you years of enjoyment. You will want to keep this manual handy, as it is a convenient source of information about your projector.
For your own protection and prolonged operation of your projector, please read the enclosed Safety Sheet.

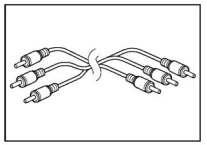
**Packaging contents**

Please confirm that the following items are packed in the projector box. They are provided to help you use or set up your projector.

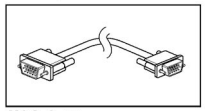


***Projector***
***Lenscap - 3122 434 21542***

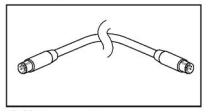
***Remote control + batteries***
***3 x AA, 1.5 V - 3104 207 13810***



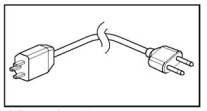
***Audio/Video RCA Cable***
***4822 320 12280***



***VGA Cable***
***3122 438 75110***

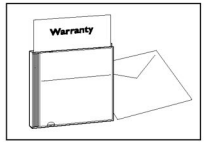


***S-Video cable***
***3122 438 75140***

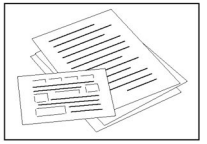


***Mains Lead***
***Europe: 4822 321 11399***
***USA: 4822 321 11294***
***UK: 4822 321 11431***

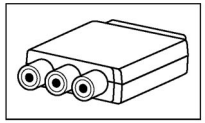

***Printed User Guide***
***3103 435 90070***



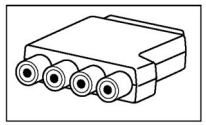

***Cd-rom*** *(with Projection Assistant, Warranty card, User Guide, Data sheet and more.)* ***3103 438 70060***



***Quick set up Card and Safety Sheet***
***3103 435 90060***



***Scart/RCA Audio Video adapter*** *(not for USA version)*
***2422 033 00345***

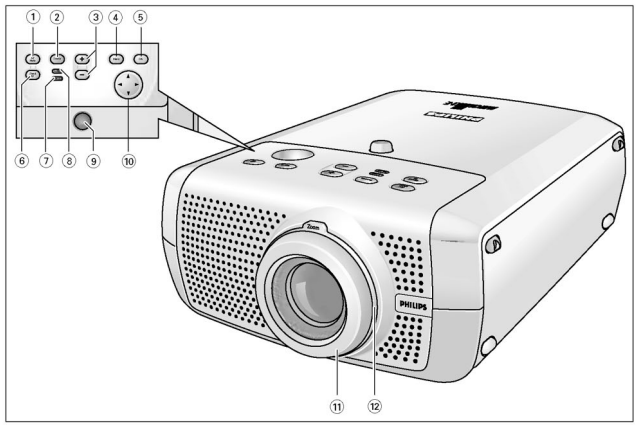


***Scart/RCA component Video adapter*** *(not for USA version)*
***3122 438 71170***

**Optional accessories**

- LCA 1120/00 - Soft bag - 8670 911 20009
- LCA 3116/00 - 132 W replacement lamp - 8670 931 16009
- LCA 2211/00 - Ceiling mount - 8670 922 11009
- LCA 5310/00 - Monitor Y-cable - 8670 953 10009
- LCA 5300/00 - VGA extension cable (15 m) - 8670 953 00009

***Note*** *For further information on parts and accessories, please contact the dealer from which you purchased your Philips projector.*




**A**(udio)**/V**(ideo) **Mute** (1) To mute the sound of the projector and to mute the picture.

**Source** (2) To select the current projection source (Video, S-Video, Component, RGBS, Computer). The button toggles between the five signals.

**– / +** (3) To adjust the volume.

**Menu** (4) To activate and deactivate the menu.

**OK** (5) To confirm actions in the menu when the menu is on screen.

**Standby/ Standby indicator** (6) To switch the projector in or out of the Power/Standby mode.
The Standby indicator (text on button/ring around button):
- lights up orange when the projector is warming up;
- lights up red when the projector is in Power/Standby mode;
- lights up green as when the projector is operating;
- slowly blinks orange when the projector is cooling down.

**Temperature indicator** (7)
- Lights up red in case of temperature error.
- Flashes in case of fan error.

**Lamp indicator** (8)
- Lights up green when the lamp is on.
- Lights up orange when lamp life has almost expired.
- Lights up red when lamp life has expired.
- Fast blinks red when lamp start has failed.

**IR sensor** (9) To receive the signals from the remote control.

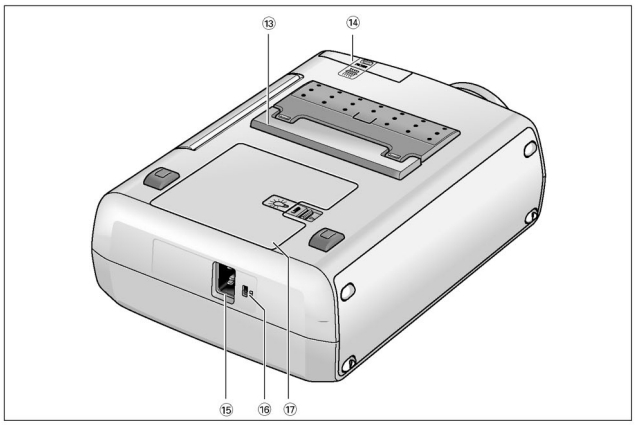
**Cursor Control** (10) When the menu is active the Cursor Control controls the menu cursor to navigate through the OSD menu. The cursor control works with up/down and left/right button operation.

**Focus ring** (11) To adjust the focus of the projected image.

**Zoomring** (12) To adjust the size of the projected image.







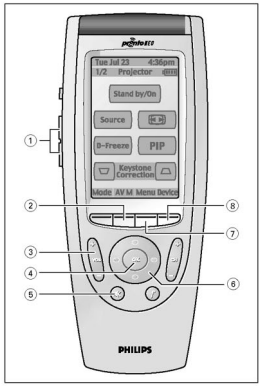

**Height/Level adjuster** (13) To adjust the vertical angle of the projector.

**Dust filter** (14)

**Mains inlet socket** (15) To connect the projector to the mains.

**Lock slit** (16) To insert an optional locking device (Kensington lock).

**Lamp compartment** (17)




The ProntoNEO remote control supplied is an intelligent remote control that can be used for virtually all audio and video devices that understand infrared (IR) signals. In this chapter we will describe the remote control buttons needed for operating your Garbo Matchline projector. For further use of the remote control see the information in the ProntoNEO user manual supplied. The remote control operates with soft and hard buttons. Soft buttons are the buttons you can tap on the LCD touch screen. Hard buttons are the buttons located below and on the left side of the LCD touch screen. To activate the remote control, press any button or gently tap the touch screen with your finger or a soft object. The display will then light up.

***Note*** *Before operating your projector via the remote control, first press the Device selection button and select Projector on the Device Overview page.*

### Hard buttons

**+/– (Page up/down)** ① To select a next/previous soft button page.

**A**(udio)**/V**(ideo) **Mute** ② To mute the sound of the projector and to mute the picture.

**– Vol(ume) +** ③ To adjust the volume.

**OK** ④ To confirm actions in the menu when the menu is on screen.

**Mute** ⑤ To mute the sound of the projector.

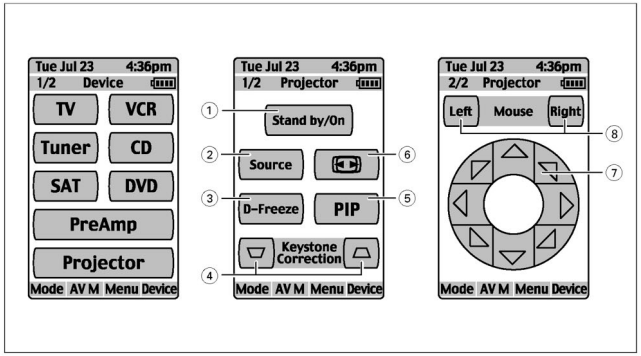
**Cursor Control** ⑥ When the menu is active the Cursor Control controls the menu cursor to navigate through the OSD menu. The cursor control works with up/down and left/right button operation.

**Menu** ⑦ To activate and de-activate the menu.

**Device selection button** ⑧ To select the Device Overview page.








### Soft buttons

**Standby/On** ① To switch the projector in or out of the Power/Standby mode.

**Source** ② To select the current projection source (Video, S-Video, Component, RGBS, Computer). The button toggles between the five signals.

**D**(igital)**-Freeze** ③ To capture a (moving) picture. The button toggles between the Freeze mode and the display situation.

**▽ Keystone Correction △** ④ To correct picture distortion of the vertical keystone type by digital scaling.

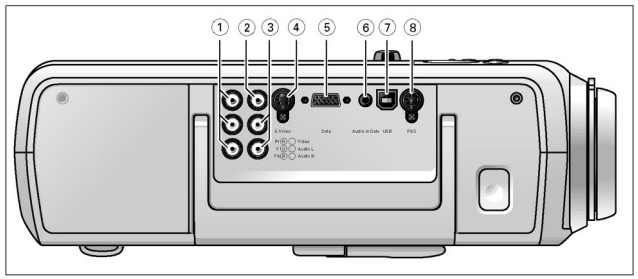
**PIP (Picture In Picture)** ⑤ To project a Video or S-Video picture in the currently projected computer picture.

**Picture format** ⑥ To select one of the six available picture format options (wide screen, super zoom 4:3, 4:3, movie expand 14:9, movie expand 16:9, 16:9 subtitles).

**Cursor Control** ⑦ To manipulate the mouse cursor on the connected computer as long as the menu is not active. The cursor control works with up/down and left/right button operation.

***Note*** *The Cursor Control can only function as a mouse cursor when projector and computer are connected via the USB or PS/2 connectors. Windows 98, Windows ME, Windows 2000 or Windows XP should be installed on the computer when you make the USB connection.*

**Mouse Left/Right** ⑧ Function as Left and Right mouse buttons of your pc when USB or PS/2 connection has been made.




***Video source connections***

**Component in** (1)
Input sockets to connect to DVD- and HDTV-video equipment
These sockets can be connected to the following output sockets: RGB-Y, YCbCr, YPbPr (480p, 720p, 1080 i).

**Video** (2)
Input socket to connect to the Video out socket of a video recorder, Laser Disc player, video camera, DVD player, or TV with AV output socket.
This socket can be connected to CVBS output sockets.

**Audio L/R** (3)
Input sockets to connect to the Audio out sockets of a video recorder, laser disc player, video camera or TV with A/V output socket.

**S-Video** (4)
Input socket to connect to the S-Video out socket of a S-VHS video recorder, a VCR, Laser Disc player, DVD player, video camera or TV with AV output socket.
This socket can be connected to a S-Video/S-VHS (Y/C) output socket.

***Data source connections***

**Computer** (5)
Input socket to connect to the Data out terminal of a computer.

**Audio in Computer** (6)
Input socket to connect to the Audio out terminal of a computer.

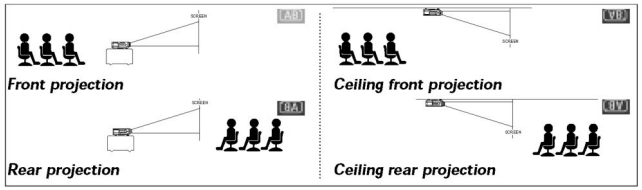
**USB** (upstream) (7)
In-/Output socket to connect a PC or Apple Macintosh computer equipped with a USB downlink connection. When USB connection is used the mouse cursor on the connected computer can be controlled via the projector remote control. Make sure Windows 98, Windows ME, Windows 2000 or Windows XP is installed on the computer.

**PS/2** (8)
In-/Output socket to connect a PC or Apple Macintosh computer equipped with a PS/2 connection. When PS/2 connection is used the mouse cursor on the connected computer can be controlled via the projector remote control.



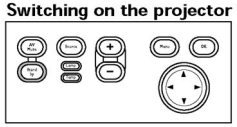


**Positioning the projector and screen**




- Place the projector on a stable, level surface, out of direct sunlight and away from sources of excessive dust, dirt, heat, water, moisture, vibration and strong magnetic fields.
- Allow sufficient cooling of the product by keeping all air inlets and outlets clear from obstructions.
- Position the projector in such way that the viewers cannot watch into the projector light beam.
- Choose a screen size suitable for the number of viewers and the size of the room.
- Picture quality is best when you sit directly in front of the projector screen.
- The projector can be used for both front projection, rear projection and ceiling projection applications. As default factory setting, the projector has been set up for front projection. You can change to rear or ceiling projection via the 'Mirror' function in the 'Picture' menu.

**Switching on the projector**



**1** Insert the mains lead into the projectors Mains inlet socket and connect it to the wall socket.
– The Standby indicator lights up red, the projector is now in the Power/Standby mode.
**2** Remove the lens cap.
**3** Press *any* button on projector or remote control to switch on the projector.
– The Standby indicator lights up orange.


– When the projection lamp is on, the Standby indicator lights up green and the start-up screen appears for several seconds.


**4** Press the Standby button to switch the projector back into the Power/Standby mode.
– The Standby Warning screen will appear for 20 seconds.
• The Standby Warning screen can be removed by pressing the OK button.
**5** Press the Standby button again to confirm.
– The projector will now go into Power/Standby mode.

*You can also press the Standby button twice in succession to switch the projector into Power/Standby mode immediately.*

**6** To switch off the mains supply completely, disconnect the mains lead.

***Notes***

*Save energy! Please put the projector in the Power/Standby position if you are not going to use the projector for more than 15 minutes.*

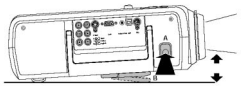
*When no signal inputs are detected for 30 minutes, the projector automatically switches to Power/Standby (SmartSave). This setting can be changed in the 'Settings' menu*

*Before disconnecting the mains lead, make sure that the cooling fan has stopped (about 3 minutes after the projector has been switched to Power/Standby).*

**Adjusting the focus and size of the image**


- Use the Zoom ring to adjust the size of the image.
- Use the Focus ring to adjust the focus of the image.

**Adjusting the vertical angle of the projector**



***To raise:***

- Keep knob A pressed and lift to raise the projector.

– The Height/Level Adjuster B will come out.

***To lower:***

- Keep knob A pressed and gently lower the projector.
- Use the Focus Ring and Zoom Ring to readjust the focus and size of the image.

**Keystone correction**

If projector and screen are not properly placed, the picture will be distorted, producing a keystoned image (picture top width larger than picture bottom width or vice versa). When a keystoned image occurs the image ratio (4:3, 16:9) will still be guaranteed. This is especially important when the projector is being used together with an 'intelligent whiteboard'.
'Keystone correction' allows you to correct picture distortion of the vertical keystone type by internal scaling.

- Use the Keystone button ∇ to widen the image.
- Use the Keystone button Δ to narrow the image.

This correction function also is accessible through the 'Keystone Correction' option in the 'Settings' menu of the On Screen Display (OSD) menu.

**Moving/transporting the projector**

***Preparation***

**1** Press the Standby button *twice* to put the projector in Power/Standby.

– The Standby indicator starts blinking orange.

**2** Wait until the cooling fan has stopped (about 3 minutes after the projector has been put in Standby) and disconnect the mains lead and all other cables.

**3** Put the lens cap back in place to prevent dust, dirt or other contamination from harming or damaging the front of the projector lens when moving the projector.

***Note***

*Never place the projector on the side where the connections are located.*

***Moving/transporting the projector***

The projector contains many glass and precision parts. If you need to transport the projector, please follow these packing instructions to pervent accidental damage to the projector.

- When you are hand-carrying the projector, be sure to use a carrying case like the optional softbag.
- When shipping the projector, use the original packaging material if possible. If you do not have the original packaging, use equivalent materials, placing plenty of cushioning around the projector.
- When transporting the projector as freight or checked luggage, first put it in a carrying case, then pack it in a firm box, using cushioning around the case.

**Inserting the batteries in the remote control**

**1** Push and slide the lid in the direction of the arrow.

**2** Install two 'AAA' batteries as indicated inside the battery compartment.

**3** Replace the lid and snap it into place.

*The maximum range of the remote control is approximately 15 m (± 50 feet).*





**General information**

***Video input***

The projector accepts the input signal of all major video formats, including NTSC 3.58, 4.43, PAL B, G, D, H, I, N, M and SECAM signals. The projector will recognize these standards and adapt to them automatically. With the 'Picture Format' feature you can select one of six picture format options: wide screen, super zoom 4:3, 4:3, movie expand 14:9, movie expand 16:9, 16:9 subtitles.

***Computer input***

The computer input is suitable for both Apple Macintosh computers (Power Book and Power Mac) as well as for IBM compatible PCs. The projector is Microsoft (R), Windows (R) 95/98/ME/2000/XP compatible and accepts input signals from all computers that meet following specifications:

- Multi scan VGA-SXGA
- Horizontal scan rate: 15-108 kHz
- Vertical refresh rate: 50-120 Hz
- Bandwith: 140 MHz
- Display Data Channel DDC: 1/2B

The data output of IBM compatible PCs can be connected directly to the projector using standard data cables. When connecting the projector to a Macintosh computer equipped with a 2 row, 15 pin connector a VGA/MAC adaptor (available at your PC store) is required. If your computer is equipped with a 3 row connector no adaptor is needed.

***Universal Serial Bus (USB)***

The Universal Serial Bus (USB) connector allows you to connect to computers equipped with a USB interface, resulting in real hot plug and play presentation.
*Mouse control:*
By connecting USB, the mouse function on the Remote Control automatically gets installed.
You can now manipulate the mouse cursor on the computer and on the screen, using Cursor Control on the remote control. The Mouse Left/Right buttons on the remote control function as Left and Right mouse keys of your pc.

***Note***

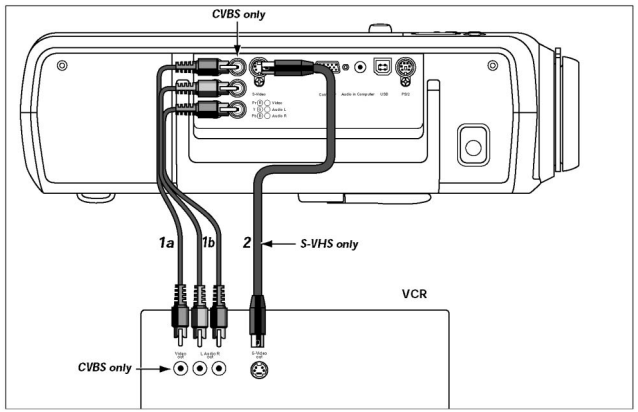
*Based on the specific hardware and software configuration available, Apple Macintosh computer users could experience incomplete or erratic USB -functionality. These problems are not related to the performance of your projector.*

***External monitor connection***

A separate external monitor (or a second projector) can be connected to the projector.
The image projected is simultaneously shown on the monitor, even when the projector is in Power/Standby or Off mode.

**CAUTION**

*Always switch off projector and external equipment before making any connections.*



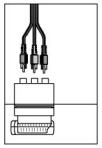

**CVBS**

1 Connect the Video (out) socket of a VCR, Laser Disc player, video camera or TV to the Video (in) socket of the projector.
For this, use the video/audio connection cable ***(1a)*** supplied.
2 Connect the Audio out L/R sockets of the VCR, Laser Disc player, video camera or TV to the Audio (in) L/R sockets of the projector.
For this, use the audio/video connection cable supplied ***(1b)***.

**S-VHS**

1 Connect the S-Video (out) socket of a S-VHS video recorder, Laser Disc player, video camera or TV to the S-Video (in) socket of the projector.
For this use the S-Video connection cable supplied ***(2)***.
2 Connect the Audio out L/R sockets of the S-VHS video recorder, Laser Disc player, video camera or TV to the Audio (in) L/R sockets of the projector.
For this, use audio/video connection cable supplied ***(1b)***.

**Scart connection**

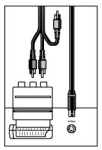


***Scart adapter***
***(not for USA version)***

***CVBS***

1 Connect the Scart/RCA Audio Video adapter supplied to the Scart connector of the VCR, Laser Disc player, video camera or TV.
2 Plug the video/audio connection cable supplied into both the adapter and the Video and Audio (in) L/R sockets of the projector.

***S-VHS***

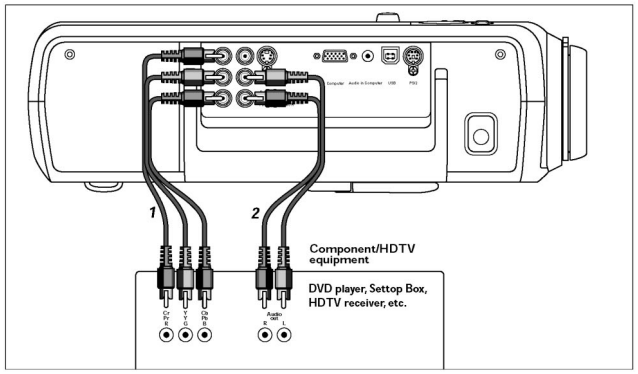


***Scart adapter***
***(not for USA version)***

3 Plug the S-Video connection cable supplied into the VCR and the S-Video socket of the projector.



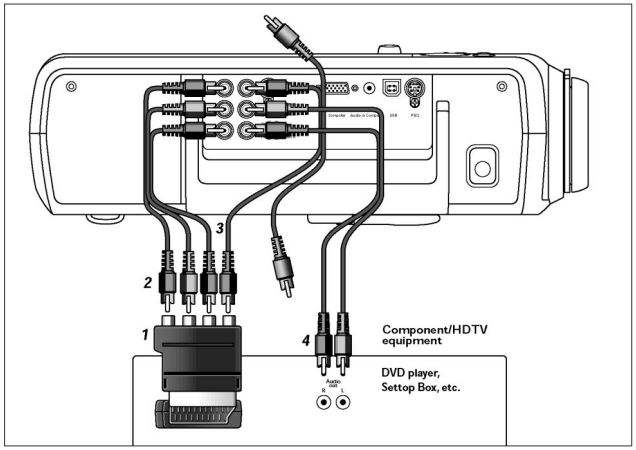





**Component/HDTV**

***Pr, Y, Pb/Cr, Y, Cb***

1 Connect the Component in sockets of the projector to the appropriate output sockets of your Component- or HDTV-video equipment (Pr, Y, Pb / Cr, Y, Cb).
For this, use the audio/video connection cable supplied ***(1)***.
2 If required you can connect the Audio out L/R sockets of the Component- or HDTV-video equipment to the Audio (in) L/R sockets of the projector.
For this, use an optional audio connection cable ***(2)***.
– Audio information from the Component- or HDTV-video equipment will be played via the projector speaker.




**Scart connection**

***RGBS***

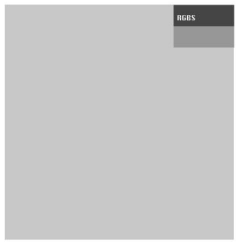
**1** Connect the Scart/RCA Component Video adapter supplied ***(1)*** to the Scart connector of your Component- or HDTV-video equipment

**2** Connect the Component in sockets of the projector to the R, G and B outputs of the adapter.
For this, use the audio/video connection cable supplied ***(2)***.

**3** Connect the Video input of the projector to the Y output of the adapter.
For this, use an optional audio/video connection cable ***(3)***.

**4** Select 'RGBS' input by pressing the Source button.

– 'RGBS' appears on the screen.

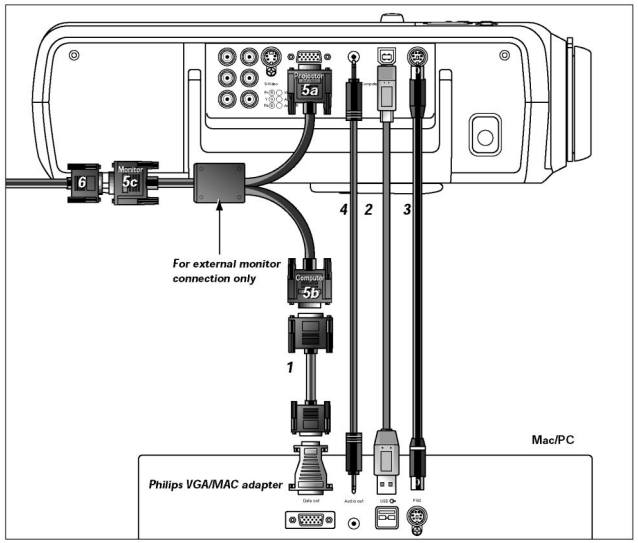



**5** If required you can connect the Audio out L/R sockets of the Component- or HDTV-video equipment to the Audio (in) L/R sockets of the projector.
For this, use an optional audio connection cable ***(4)***.

– Audio information from the Component- or HDTV-video equipment will be played via the projector speaker.








***PC/Macintosh***

**1** Connect the Data (out) socket of the computer to the Computer (in) socket of the projector and secure the plugs by tightening the thumb screws.
For this, use the VGA cable supplied ***(1)***.

**2** Connect the USB (upstream) socket of the projector to the USB downstream port of the computer.
For this, use an optional USB cable ***(2)***.

or:

**2** Connect the PS/2 (out) socket of the projector to the PS/2 (in) socket of the computer.
For this, use an optional PS/2 cable ***(3)***.

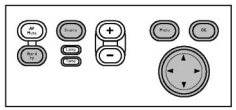
• When switching on, *first* switch on the projector and *then* the PC.

– You can now manipulate the mouse cursor on the computer and on the screen, using Cursor Control on the remote control. When using the USB connection, make sure Windows 98, Windows ME, Windows 2000 or Windows XP is installed on the computer.

– The display settings of the computer will be changed to fit the capability of the projector.

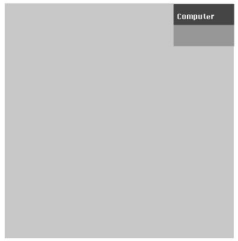
**3** If required you can connect the Audio out socket of the computer to the Audio in Computer socket of the projector.
For this use an optional audio cable ***(4)***.

– Audio information from the Computer will then be played via the projector speaker.



***Connecting to an external monitor***

**1** Connect the VGA Y connector marked 'Projector' ***(5a)***, of an optional VGA Y-cable, to the Computer (in) socket of your projector.
**2** Connect the VGA cable supplied ***(1)*** between the computer and the VGA Y connector marked 'Computer' ***(5b)***.
**3** Connect the VGA Y connector marked 'Monitor' ***(5c)*** to the VGA cable ***(6)*** of the monitor.
**4** Switch on your Computer.
**5** Switch on the projector.
**6** Select 'Computer' input, using the Source button.
– 'Computer' appears on the screen.




**7** Press Menu.
– The menu bar appears on the screen.
**8** Use Cursor Control to select 'Settings' in the menu bar.

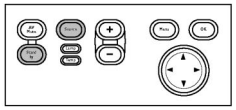

**9** Use Cursor Control to select 'Monitor out'.
**10** Use Cursor Control to select 'On'.
– The projector will indicate the necessity to connect the Y-cable.
**11** Switch on the external monitor.
– The image projected is simultaneously shown on the monitor.








**General**



**1** Press the Standby button to switch on the projector.


– The Standby indicator lights up orange.
– When the projection lamp is on, the Standby indicator lights up green and the start-up screen (when enabled) appears for several seconds.

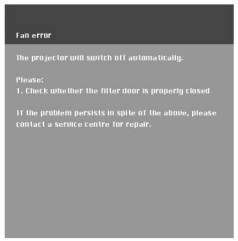
**2** Select the required source (Video, S-Video, Component, RGBS, Computer) by pressing the Source button.

***Note***

*When only one input source is connected, this source will automatically be selected (AutoSet). When more input sources are connected, the source with the highest priority will be selected (Video, S-Video, Component, RGBS, Computer). Source selection can be changed in the 'Settings' menu.*

**3** Switch on the computer or start video playback.
– A feedback message appears on the screen, indicating the selected source.

**Messages**




***General explanation***

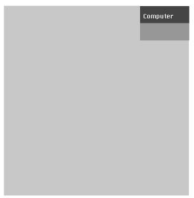
Messages are displayed in the centre of the screen. The problem is described in the header of the message display. Suggestion(s) to solve the problem are displayed in the gray part of the message display.
These messages cannot be suppressed.

***Feedback messages***

Feedback messages are displayed in the top right corner of the screen. They are displayed when:
– a signal comes up or goes down;
– when an input source is changed;
– when Mute or A/V Mute is activated;
– when the Auto image function is set to On.

***Some examples***

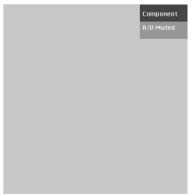
These messages will only be displayed when the menu option 'Feedback' is set to 'On' in the 'Settings' menu. All messages will be removed automatically after 4 seconds.




*Computer selected as source*

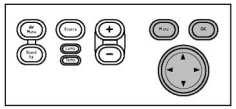

*Video selected as source, no input signal*


*S-Video selected as source, A/V muted*




*Component selected as source A/V muted*

**Menu tree**



All video and data adjustments and settings (except A/V Mute) are done via *On Screen Displays* and with help of Menu, OK and Cursor Control on the projector or the remote control.
The projector is set to standard specifications at the factory. However, you can adjust these specifications to suit your own preferences. The projector menu screens allow you to adjust the various projector settings (for both Computer and Video). For explanation and operation see next pages.




## VIDEO/S-VIDEO MODE

| Main menu | Sub menu | Setting | |
|---|---|---|---|
| **Picture** | Picture Format | wide screen | |
| | | super zoom 4:3 | |
| | | 4:3 | |
| | | movie expand 14:9 | |
| | | movie expand 16:9 | |
| | | 16:9 subtitles | |
| | Contrast | min | max |
| | Colour tracking | vivid | natural |
| | Saturation | min | max |
| | Hue (NTSC only) | min | max |
| | Sharpness | sharp | soft |
| | Colour temperature | warm | cool |
| | Red | min | max |
| | Green | min | max |
| | Blue | min | max |
| | Brightness | min | max |
| | Mirror | AB / BA / VB / BV | |
| **Display** | Digital Freeze | Off | On |
| | Digital Zoom | Off | On |
| | Magnification | min | max |

## COMPUTER MODE

| Main menu | Sub menu | Setting | |
|---|---|---|---|
| **Picture** | Picture Format | wide screen | |
| | | super zoom 4:3 | |
| | | 4:3 | |
| | | movie expand 14:9 | |
| | | movie expand 16:9 | |
| | | 16:9 subtitles | |
| | Contrast | min | max |
| | Colour tracking | vivid | natural |
| | Colour temperature | warm | cool |
| | Red | min | max |
| | Green | min | max |
| | Blue | min | max |
| | Brightness | min | max |
| | Mirror | AB / BA / VB / BV | |





**Menu tree**





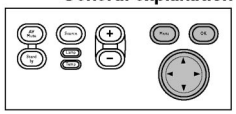
## COMPUTER MODE

| Main menu | Sub menu | Setting | |
|---|---|---|---|
| **Display** | Picture In Picture | Off, Small, Medium, Large | |
| | Source | Auto, Video, S-Video | |
| | Position | Cursor controlled positioning | |
| | Digital Freeze | Off | On |
| | Digital Zoom | Off | On |
| | Magnification | min | max |
| | Auto Image | Off | On |
| | Horizontal Size | min | max |
| | Phase | min | max |
| | Shift | Cursor controlled Shift | |

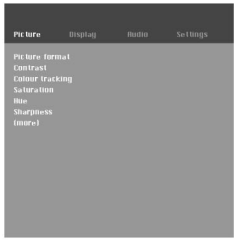
## GENERAL ADJUSTMENTS/SETTINGS

| Main menu | Sub menu | Setting | |
|---|---|---|---|
| **Audio** | Volume | Min | Max |
| | Bass | Min | Max |
| | Treble | Min | Max |
| | Mute | Off | On |
| **Settings** | Language | | |
| | | Eng. | |
| | | Esp. | |
| | | Deu. | |
| | | Fra. | |
| | | Por. | |
| | | Ita. | |
| | | Chi. | |
| | Keystone correction | | |
| | System information | OK | |
| | Factory reset | OK | |
| | Key lock | OK (3 sec.) | |
| | SmartSave | Off 15 30 45 60 120 | |
| | Start-up screen | Off | On |
| | SmartSet | Off | On |
| | Feedback | Off | On |
| | Lamp counter | OK (3 sec.) | |
| | Monitor out | Off | On |

## General explanation



**1** Press Menu.




– The menu bar appears on the screen.
The first item is highlighted and its sub menu is shown.

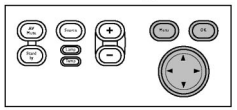

Depending on the selected source (Video, S-Video, Component, RGBS, Ordenador) some options of the submenu may be greyed out. This indicates that these functions:
– are not available in a certain mode,
– have no function for the selected source.
*For example:*
– Horizontal size under menu 'Display' when Auto image is switched to ON.
– Hue under menu 'Picture' when signaltype is not NTSC.


**2** Use Cursor Control left and/or right to move the cursor to any other item in the menu bar.
**3** Select the sub menu item to be adjusted using Cursor Control up and/or down. When more items are available than can be shown in one screen, this will be indicated by 'more' at the bottom of the list. Move the cursor down to go to the next list of items. With 'previous' you can go back to the first list.
**4** Adjust the selected item in the action window at the bottom of the screen, using Cursor Control left and/or right.
**5** Select the next item to be adjusted in the sub menu and adjust as described above.
**6** Press Menu to close the On Screen Menu Display.





## Video/S-Video adjustments






For Video/S-Video signal input, the following 'Picture' and 'Display' adjustments can be made:

***Picture adjustments***

- Press Menu and select 'Picture' in the menu bar. The following 'Picture' adjustments can now be made according to the instructions under 'General explanation'.
  For adjustment of 'Picture Format', see explanation under 'Computer adjustments'.
  – *Picture Format*
  selects one of six picture format options (wide screen, super zoom 4:3, 4:3, movie expand 14:9, movie expand 16:9, 16:9 subtitles);
  – *Contrast*
  adjusts the overall contrast intensity;
  – *Colour tracking*
  selects between 'Vivid' and 'Natural' representation of colours in the picture.
  'Vivid' is automatically set when computer input is used;
  'Natural' is automatically set when video input is used.
  – *Saturation*
  adjusts the colour saturation of the projected image;
  – *Hue (only for NTSC)*
  adjusts the tint of the projected image;
  – *Sharpness*
  controls the contour impression of the picture;
  – *Colour Temperature*
  adjusts the overall colour impression from warm to cool.
  The various colours (red, green and blue) can also be adjusted individually;
  – *Brightness*
  adjusts brightness of the displayed picture;
  – *Mirror*
  mirrors the picture for use of the projector in various positions with respect to the user(s) and the projection screen.

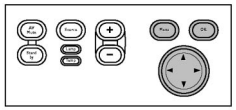
***Display adjustments***

- Press Menu and select 'Display' in the menu bar. The following 'Display' adjustments can now be made according to the instructions under 'General explanation'.
  For adjustment of 'Digital Zoom/Magnification', see explanation under 'Computer adjustments'.
  – *Digital Freeze*
  captures a moving picture (still picture);
  – *Digital Zoom*
  enlarges a part of the picture;
  – *Magnification*
  adjusts the zoom factor.

## Computer adjustments

For computer signal input, the following 'Picture' and 'Display' adjustments can be made.





### *Tip for Windows users*

*To adjust size and phase correctly*

***1** Select 'Start' and then 'Shut down' from the Windows Taskbar.*

***2** Adjust the projectors size control, so that no vertical bars are visible.*

***3** Now adjust the projectors phase control for maximum brightness of the projected image.*

***4** Press 'No' in the Windows shutdown screen to cancel the shutdown action.*

### *Picture adjustments*

- Press Menu and select 'Picture' in the menu bar. The following 'Picture' adjustments can now be made according to the instructions under 'General explanation':
  - *Picture Format*
    selects one of six picture format options (wide screen, super zoom 4:3, 4:3, movie expand 14:9, movie expand 16:9, 16:9 subtitles);
  - *Contrast*
    adjusts the overall contrast intensity;
  - *Colour tracking*
    selects between 'Vivid' and 'Natural' representation of colours in the picture.
    'Vivid' is automatically set when computer input is used;
    'Natural' is automatically set when video input is used.
  - *Colour Temperature*
    adjusts the overall colour impression from warm to cool.
    The various colours (red, green and blue) can also be adjusted individually.
  - *Brightness*
    adjusts brightness of the displayed picture;
  - *Mirror*
    mirrors the picture for use of the projector in various positions with respect to the user(s) and the projection screen.

### *Display adjustments*

- Press Menu and select 'Display' in the menu bar. The following 'Display' adjustments can now be made according to the instructions under 'General explanation':
  - *Picture In Picture*
    Projects a Video or S-Video picture in the currently projected computer picture;
  - *Digital Freeze*
    captures a moving picture (still picture);
  - *Digital Zoom*
    enlarges a part of the picture;
  - *Magnification*
    adjusts the zoom factor;
  - *Auto image*
    automatically sizes and positions the image to fit optimally in the screen picture;
  - *Horizontal size*
    adjusts the computer image in a horizontal direction to make the image completely fill the screen;
  - *Phase*
    minimises picture imperfections. When connecting the projector to your PC for the first time, be sure to adjust the phase control for optimal readability of the projected text;
  - *Shift*
    adjusts the computer image in horizontal and vertical direction to centre it on the screen.



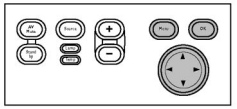


### *Some examples*

The following 'Display' adjustment procedures, follow a slightly different sequence of actions, or may need some further explanation.

### *Picture Format*

'Picture Format' is used to select one of six picture format options (wide screen, super zoom 4:3, 4:3, movie expand 14:9, movie expand 16:9, 16:9 subtitles). Default mode for computer signal input at each start up of the projector is 4:3. For video signal input the picture format will be selected that was selected the last time the projector was switched on.



**1** Press Menu.


– The menu bar will appear.
'Picture' is highlighted and its sub menu is shown.

**2** Use Cursor Control to move the cursor to 'Picture Format'.

**3** Select the desired picture format.

– Selected picture format is activated. See also 'Vertical shift'.

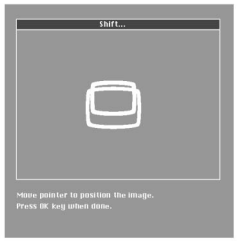
**4** If required, select the next item to be adjusted or press Menu to exit.

**Note**

*With the Picture Format (⛶) button on the remote control, you can toggle through the various picture formats. A feedback message on the screen indicates the selected picture format.*

### *Vertical Shift*
### *(after selecting picture format for video input signal)*

Due to the scaling of the image when the picture format is changed, it might be possible that a part of the actual image is missing at the top or the bottom of the screen. When one of the picture formats 'super zoom 4:3', 'movie expand 14:9', 'movie expand 16:9', '16:9 subtitles' is selected and confirmed by pressing OK, the Vertical Shift function is activated. This allows you to correct the position of the projected image upwards or downwards.



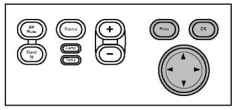

**1** Use Cursor Control to move the projected image upwards or downwards.

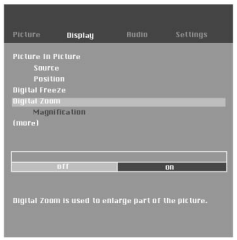
**2** Press OK to confirm and store the adjustment.

**3** If required, select the next item to be adjusted or press Menu to exit.

**Note**

*When the 'Vertical shift' window has been removed you can also the Cursor Control Up/Down buttons on the projecor or the remote control to move the image upwards/downwards.*






### *Digital Zoom/Magnification*

'Digital Zoom' is used to enlarge a part of the picture.

**1** Press Menu.

– The menu bar will appear.

**2** Use Cursor Control to move the cursor to 'Display'.

**3** Use Cursor Control to move the cursor to 'Digital Zoom'.

**4** Select 'On' to switch 'Digital Zoom' on.

- Press OK to continue, or
- Press Menu to exit and continue with the previous Zoom settings.

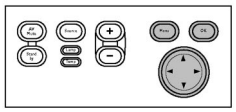
**5** Use the zoom target to select centre of the screen area you wish to enlarge.

- Press OK to confirm.

**6** Use the Magnification slider to adjust the Zoom factor.

- Press OK to confirm and exit the menu.

**7** Use Cursor Control to select another section of the enlarged area ('Panning').




### *Picture in picture (PIP)*

'PIP' enables the projection of a Video or S-Video picture in the currently projected computer picture;

**1** Press Menu.

– The menu bar will appear.

**2** Use Cursor Control to move the cursor to 'Display'.

**3** Use Cursor Control to move the cursor to 'Picture in Picture'.

**4** Select the required picture size ('Small','Medium' or 'Large') or select 'Off' to switch off 'PIP'.

**5** Use Cursor Control to move the cursor to 'Source'.

**6** Select the source ('Video' or 'S-Video') from which you wish to project the picture in the currently projected computer picture.
If you select 'Auto' the system will check if there is a source available that can be displayed in the PIP window. If such a source is found then it will be displayed.

**7** Use Cursor Control to move the cursor to 'Position'.

**8** Press OK to confirm.


– The 'PIP Position' window will appear.

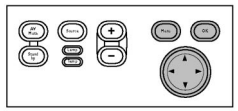
**9** Use Cursor Control to position the 'PIP' window.

**10** Press OK to confirm.

***Note*** *Please note that only Video and S-Video sources can be displayed in the PIP window and only when the main window is displaying a computer source (or no source at all). Any invalid combination will result in a black PIP window for the main window has priority.*








### *Shift*

The Shift function adjusts the computer image in horizontal and vertical direction to centre it on the screen. This function is only active when 'Auto image' is set to 'Off'.

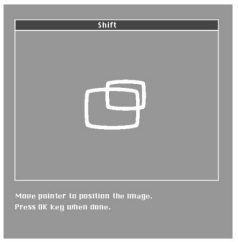
**1** Press Menu.

– The menu bar will appear.

**2** Use Cursor Control to move the cursor to 'Display'.

**3** Use Cursor Control to move the cursor to 'Shift'.

**4** Press OK to activate Shift.




**5** Use Cursor Control to position the computer image.

**6** Press OK to confirm and store the adjustment.

**7** If required, select the next item to be adjusted or press Menu to exit.

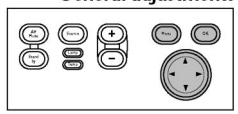
### *Auto image*

The Auto Image function automatically sizes and positions the image to fit optimally in the screen picture. In addition it takes care for phase adjustment. It does not affect the selected picture format. When Auto Image is set to On, the Horizontal size, Shift and Phase options are greyed out.

### *Horizontal size*

The Horizontal size function is used to size a computer image to make it fit the projected picture. When the OSD menu is active and the horizontal size option is selected, the level will be indicated graphically on a linear scale (slider).

**General adjustments**

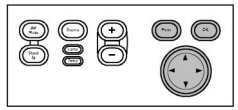



***Audio adjustments***

- Press Menu and select Audio in the menu bar. The following Audio adjustments can now be made for both Computer, Component and Video/S-video input, according to the instructions under 'General explanation':
  - *Volume*
    adjusts the sound level;
  - *Bass*
    adjusts the bass tones;
  - *Treble*
    adjusts the high tones;
  - *Mute*
    mutes the sound of the projector.

*The volume can also be adjusted with the – Volume + keys on the remote control and local keyboard.*

**General settings**





The projector is equipped with the following functions to optimize its use and handling:

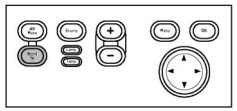
- Press Menu and select Settings in the menu bar. The following settings/adjustments can now be made for both Computer, Component and Video/S-video input, according to the instructions under 'General explanation':
  - *Language*
    To select the required menu language;
  - *Keystone correction*
    To correct picture distortion of the vertical keystone type by internal scaling;
  - *System information*
    The System Information sub menu contains an overview of the most relevant projector settings, including information on the hardware and software configuration;
  - *Factory reset*
    To reset all user settings to the default factory settings;
  - *Key lock*
    To de-activate all remote and local controls. To disable the keylock function keep the OK button pressed for 10 seconds;
  - *SmartSave*
    To switch off SmartSave mode or to select the delay time after which the projector automatically switches to Standby;
  - *Start-up screen*
    To display or suppress the default Philips start-up screen upon the projector's start up;
  - *SmartSet*
    To switch automatic source selection on or off;
  - *Feedback*
    To suppress OSD messages. Warning or error messages however are never suppressed;
  - *Lamp counter*
    To show the operating time of the lamp, which can be reset after a new lamp has been installed;
  - *Monitor out*
    Enables image on second monitor connected.



# 6. Maintenance >

**Cleaning**

***Caution***



*Switch off and disconnect the projector before cleaning.*

1. Press the Standby button *twice* to switch off the projector.
   – The Standby indicator starts blinking orange.
2. Wait until the cooling fan has stopped (about 3 minutes after the projector has been put in Standby) and disconnect the mains lead and all other cables.

***Cleaning the cabinet***

- When the cabinet is dusty, clean it by gently wiping with a soft cloth.
- A chamois leather slightly moistened with water is sufficient for cleaning the housing.
- Do not use cleaning agents as they may harm the housing.

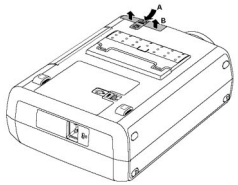
***Cleaning the lens***

- When the lens is dirty or dusty, first blow the dust off and then gently wipe with a soft brush or lens cleaning paper. Never touch the lens with your fingers.
  – The lens is likely to become mouldy if left dirty.

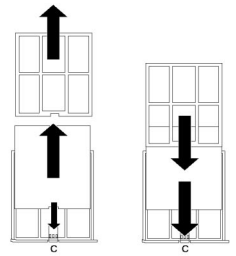
***Cleaning the dust filter***

***Important***

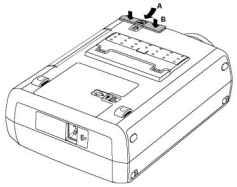
*Make sure to clean the dust filter regularly.*




1. Switch off the projector and wait until the cooling fan has stopped before disconnecting the projector.
2. Turn the projector over. *Never place the projector on the side where the connections are located!*
3. Press tab A and remove filter holder B from the projector.




4. Press clamp C, open the holder and remove the filter.
5. While firmly holding the filter, gently remove any accumulated dust, from the dusty side, with a vacuum cleaner.
6. Press clamp C, put the filter back in place and release clamp C. Firmly press the filter edges in place.
7. Close the filter holder.




8. Press tab A and insert the filter B into the projector.

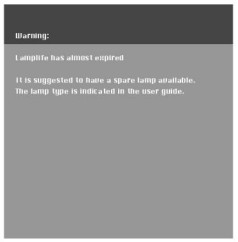
***Notes***

*We advise you to clean the filter every 100 hours. Operating the projector without filter or with a torn or damaged filter may seriously damage the projector.*

*When the filter is damaged replace it with a filter of the same type (12 nc: 3122 434 0157 0).*

*The projector power cannot be switched on again unless the filter holder is installed correctly.*

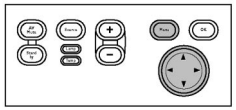
## Lamp



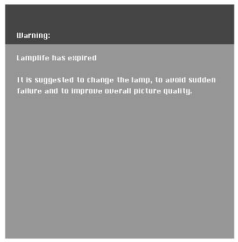

When operation time reaches the last 100 hours of the average lamplife, the message 'Warning: lamplife has almost expired' will be displayed on the screen, each time the projector is switched on. The lamp indicator lights up orange.

The lamplife remaining can be checked using the OSD menu.

**1** Press Menu.
– The menu bar appears on the screen.
**2** Use Cursor Control to move the cursor to 'Settings'.
**3** Use Cursor Control to select 'Lamp counter'.

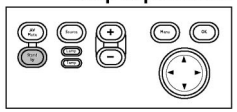


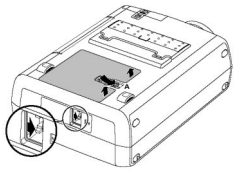

– The remaining lamplife hours are displayed in the action window at the bottom of the screen.




– When the lamplife has expired, the lamp indicator lights up red and the message 'Warning: lamplife has expired' is displayed on the screen.

## Lamp Replacement



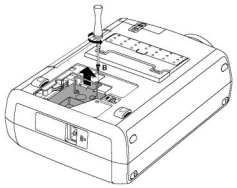


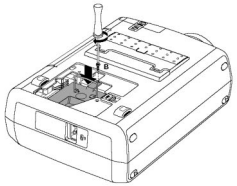
**1** Switch off the projector and wait until the lamp has cooled down (about 5 minutes) before disconnecting the projector. Remove the mains lead from both projector and wall socket. ***The mains lead must be disconnected from the projector otherwise the lamp door cannot be removed.***
**2** Turn the projector over. *Never place the projector on the side where the connections are located!*
**3** Push tab A to the right and remove the lamp door.
– When tab A is pressed the mains inlet socket will be partly closed. *The lamp door therefore cannot be removed if the mains lead is not disconnected from the projector.*
**4** Read the caution and warning labels on the lamp holder.

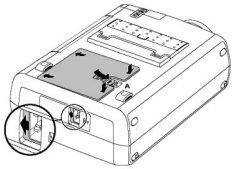




## Lamp replacement

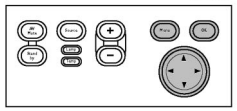




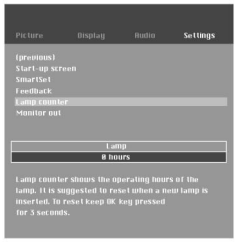


**5** Unscrew screw B.
**6** Grasp the lamp holder handle and carefully pull the lamp holder out of the projector.
• Do not tilt. If the inner tube is broken glass particles may fall out.
• Keep lamp holder opening to your right. Do not touch lamp or point lamp holder opening at anyone.
**7** Carefully remove the new lamp housing from its package.
• Always use the same type of lamp: LCA3116/00 (132 W), 12nc: 8670 931 16009.
• Do not touch lamp or point lamp housing opening at anyone.
• Do not drop, as the impact may cause the lamp to break.
**8** Place the lamp holder in the guiding slots and insert into the lamp compartment.
**9** Tighten screw B again.
**10** Put the lamp door back in place and press tab A back in its original position.
– The Mains inlet socket will open again.
**11** Insert the mains lead into both the projector Mains inlet socket and the wall socket.
**12** Press the Standby button to switch on the projector.
**13** Reset the lamp life time (see 'Resetting the lamplife time').
**14** Dispose of the old lamp in special chemical disposal bins.

## Resetting the lamplife time



**1** Press Menu.
– The menu bar appears on the screen.




**2** Use cursor control to select 'Settings' in the menu bar.
**3** Use cursor control to select 'Lamp counter' in the sub menu.
**4** Press OK for 3 seconds to reset the lamp counter.
**5** If required, select another item you wish to adjust or press Menu to exit.

# 7. Troubleshooting >

If a fault occurs, first check the points listed below before taking the projector for repair.
If you are unable to remedy a problem by following these hints, consult your dealer or service organisation.

**Warning** *Under no circumstances should you try to repair the projector yourself as this could invalidate the guarantee.*

**Read as follows**

| Problem | – *Possible cause*<br>• Solution |
|---|---|
| **Image is not or incorrectly displayed** | ***General***<br>– *Mains lead is not correctly connected.*<br>• Correctly connect mains lead.<br><br>– *The filter holder is not installed correctly or is damaged.*<br>• Install the filter holder correctly (see 'Cleaning the dust filter' under 'Maintenance').<br><br>– *Lamp holder cover is not closed correctly or the lamp holder is damaged.*<br>• Close the cover correctly (see 'Lamp replacement' under 'Maintenance').<br><br>– *Signal cable not correctly connected.*<br>• Connect signal cable correctly.<br><br>– *The projector is in Off position.*<br>• Press Standby to switch on the projector.<br><br>– *A/V Mute active.*<br>• Cancel A/V Mute.<br><br>– *'Shift' and/or 'Horizontal size' are not adjusted correctly.*<br>• Adjust 'Shift' or 'Horizontal size' (see 'Display adjustment' under 'Operation' - 'On Screen Display Menu').<br>• Activate the 'Auto-image' function via the On Screen Display menu.<br><br>***In Component Video mode***<br>– *'Auto Image' has not selected the correct settings for 'Shift' and/or 'Horizontal Size'.*<br>• Adjust 'Shift' or 'Horizontal size' (see 'Display adjustment' under 'Operation' - 'On Screen Display Menu').<br>• Activate the 'Auto-image' function via the On Screen Display menu.<br>• Reset all settings to the default factory settings with the 'Factory reset' option in the 'Settings' menu.<br><br>– *Keystoning is applied on a high resolution component signal.*<br>• Decrease keystoning until the image is correctly displayed. For this use the ▽ Keystone △ buttons on the remote control or the 'Keystone correction' option in the 'Settings' menu. |





***In Data mode***
– *Input resolution is too high (and keystoning is applied).*
• If you wish to keep the keystone correction, decrease the input resolution until the image is correctly displayed. For this, refer to the User Guide or support information of the computer.
• If you wish to keep the input resolution as it is, decrease keystoning until the image is correctly displayed. For this, use the ▽ Keystone △ buttons on the remote control or the 'Keystone correction' option in the 'Settings' menu.

– *Input resolution is too high (and no keystoning is applied).*
• Decrease the input resolution until the image is correctly displayed. For this, refer to the User Guide or support information of the computer.

***In case of RGBS (Scart) connection:***
– *RGBS is not selected or SmartSet is activated (does not recognize RGBS).*
• Select RGBS as projection source with the Source button on the projector or the remote control.

| | |
|---|---|
| **Poor colour** | • Adjust 'Brightness', 'Contrast', 'Saturation' or 'Hue' (see 'Picture adjustment' under 'Operation' - 'On Screen Display Menu').<br>• Reset all projector settings in the 'Settings' menu ('Factory reset'). |
| **Image is blurred** | – *Image is not focused.*<br>• Adjust focus ring.<br><br>– *Distance between projector and screen is not correct.*<br>• Adjust the distance between the projector and the screen.<br><br>– *Signal cable is not correctly connected.*<br>• Connect signal cable correctly. |
| **Picture rolls** | – *Signal cable is not correctly connected.*<br>• Connect signal cable correctly. |
| **No sound** | – *Audio cable is not correctly connected.*<br>• Connect audio cable correctly.<br><br>– *Volume is not adjusted properly.*<br>• Adjust volume.<br><br>– *(A/V-)Mute active.*<br>• Cancel (A/V-)Mute. |

**The projector does not react to commands from the remote control**

– *Distance is too great.*
• Reduce distance.

– *Batteries are exhausted.*
• Replace batteries (see 'Inserting the batteries in the remote control').

– *IR sensor is obstructed.*
• Remove obstacle.

**Indicators**

***Lamp indicator***
– green: normal lamp condition.
– orange: lamp life has almost expired (less than 100 hours to go).
  • See warning messages on the start up screen for details.
– red: lamp life has expired.
  • Replace lamp. See 'Maintenance'.
– red (fast blinking): lamp start has failed.
  • Disconnect projector from the mains. Reconnect and restart. If this does not resolve the problem, replace the lamp. See 'Maintenance'.

***Temperature indicator***
– red: temperature error.
  • The projector will go into Power/Standby mode. Allow the projector to cool down; this may take up to 30 minutes. When the LED goes out press any button to activate the projector again.
– fast blinking red: fan error.
  • The projector will go into Power Standby mode. Make sure the filter cover is closed properly; clean air inlets or dust filter and allow the projector to cool down; this may take up to 30 minutes. When the LED stops flashing press any button to activate the projector again.

***Standby indicator*** *(text on Standby button/ring around Standby button)*
– red: standby mode.
– green: operation mode.
– orange: warming up.
– slow blinking (orange): cooling down.
  • Do not switch the projector off; it will restart the lamp automatically within a few seconds.

**Picture too dark or bright with external monitor connected**

– *'Monitor out' has been enabled, but the external monitor is not correctly connected (the picture on both displays is too bright).*
• Connect the (optional) VGA Y-cable (See 'Connecting to an external monitor' under 'Installation').
• If the VGA Y-cable is correctly connected, verify whether the input impedance of the monitor is correctly set on 75 Ohm.

– *'Monitor out' has not been enabled, but the external monitor is connected (the picture on both displays is too dark).*
• Enable the 'Monitor out' option. Press Menu and use cursor control to go to 'Settings' in the menu bar. Select 'Monitor out' and select 'On'.

**No reaction when pressing keys on local keyboard or remote control**

– *'Keylock' active.*
• Press OK for 10 seconds to cancel 'Keylock.'





**The mouse cursor does not react when using the cursor control on the remote control**

***General:***
• Check that the batteries are installed properly in the remote control and/or replace the batteries.
• Check that the projector receives the signals from the remote control.
• Check that the USB cable or PS/2 cable has been properly connected.
• Check that both projector and computer are switched on.
• Unplug the USB cable or PS/2 cable and then reconnect.

***In case of PS/2 connection:***
– *The PS/2 mouse of the connected laptop has priority over the projector mouse loop through connection.*
• Disable the PS/2 mouse of the laptop by selecting 'Disable in hardware profile' in the 'Windows Mouse Properties' of the laptop. Then restart 'Windows' on the laptop. The projector mouse loop through connection now has priority while the laptop mouse can still be used.
• Switch off all devices and then reconnect while you make sure that you:
  • connect the PS/2 cable to PC and projector *before* switching on the PC;
  • switch on the projector *before* switching on the PC;
  • *do not* connect the USB cable when making the PS/2 connection.
• Also refer to the User Guide or support information of your computer.

***In case of USB connection:***
• Connect another USB device (mouse, scanner, webcam, etc.) and see if it works. If it does not work there is a problem with the computer.
• Also refer to the User Guide or support information of the computer.
– *'Windows' did not manage to install the driver correctly. In this case the 'Device manager' will contain a catagory 'Other devices.*
  • Disconnect the projector.
  • Remove all items listed under 'Other devices' in the 'Device manager'.
  • Restart the computer.
  • Reconnect the projector.

**Computer asks for drivers**

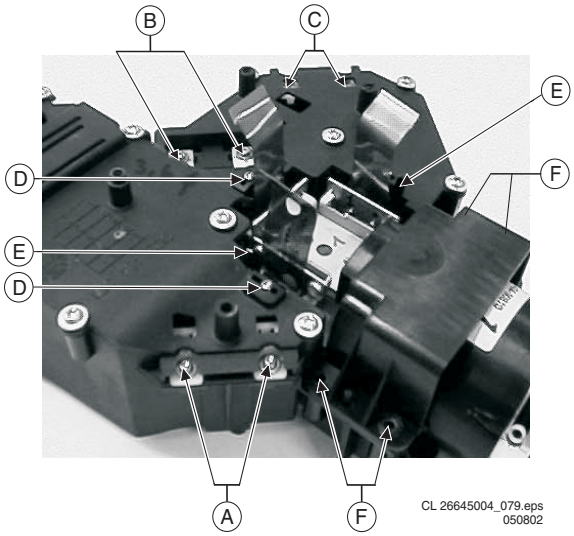
• In case the computer asks for monitor drivers, install the drivers on the CD-ROM supplied with the projector.
• In case the computer asks for a USB-device driver, install the required drivers on the CD-ROM supplied with the computer.

***Note*** *The Philips Garbo Matchline projector uses three LCD (Liquid Crystal Display) panels. These panels contain a total of 1,200,000 pixels. As with any equipment, certain tolerances apply to the performance specification of the product. Philips' specifications for defective pixels is very severe. Only one bright blue pixel is allowed. This pixel will not affect the overall picture quality or the life expectancy of the projector.*

# 8. Optical alignments

## 8.1 Corner mirror Red

Put on a red picture. If dark bands are visible on the sides, loosen the two screws (A) fixing the mirror on top, and move the mirror till the dark bands are gone.
Alternatively you can use a white picture (LCD panels not connected), and check for a red or yellow bar at the sides.

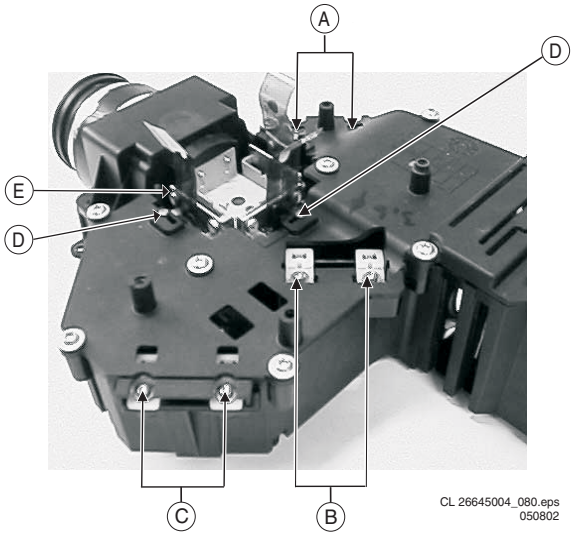



## 8.2 Corner mirror Green

Put on a green picture. If dark bands are visible on the sides, loosen the two screws (B) fixing the mirror on top, and move the mirror till the dark bands are gone.
Alternatively you can use a white picture (LCD panels not connected), and check for a green or cyan bar at the sides.

## 8.3 Corner mirror Blue

Put on a blue picture. If dark bands are visible on the sides, loosen the two screws (C) fixing the mirror on top, and move the mirror till the dark bands are gone.
Alternatively you can use a white picture (LCD panels not connected), and check for a blue or magenta bar at the sides.

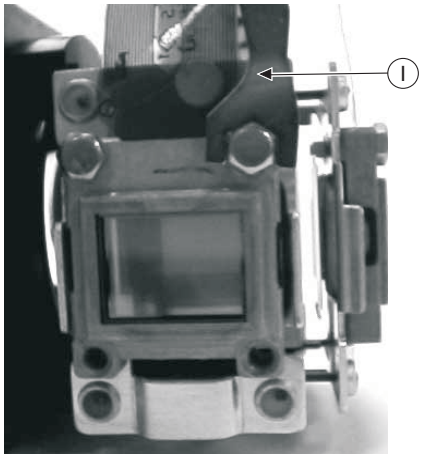



## 8.4 Polarizer adjustment

Put on a black picture. Loosen the screw (D) on top. Move the slider bar (E) minimal light in the picture.
The same adjustment is valid for all three polarizer's.

## 8.5 Convergence alignment

In the standard configuration the convergence cannot be adjusted. If convergence adjustment is necessary (e.g. after replacing an LCD), this can only be done after replacing the LCD fixation screws by special screws. The alignment is then done by moving the LCD panel itself around the screws.

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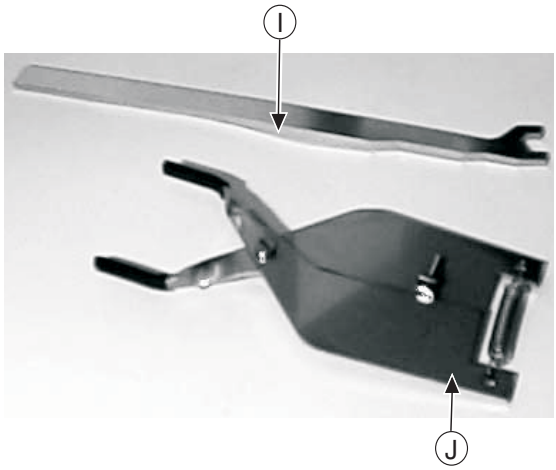


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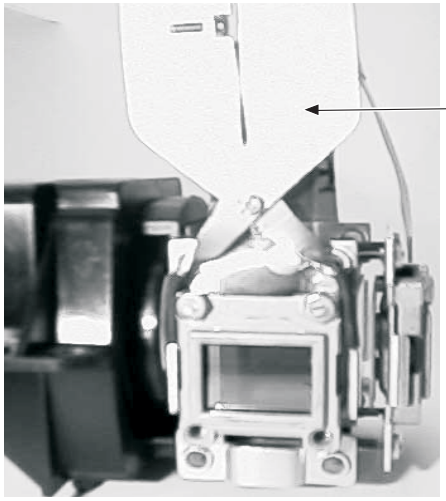
**For the alignment you need:**

| | |
|---|---|
| 3122 435 40500 | Special screws (2 for each LCD panel to be aligned). |
| 3122 435 40510 | Key “I”, with which you can loosen and fasten the special screws (H). |
| 3122 435 40520 | Manipulator “J”, which can be clamped over the LCD panel and move it. |

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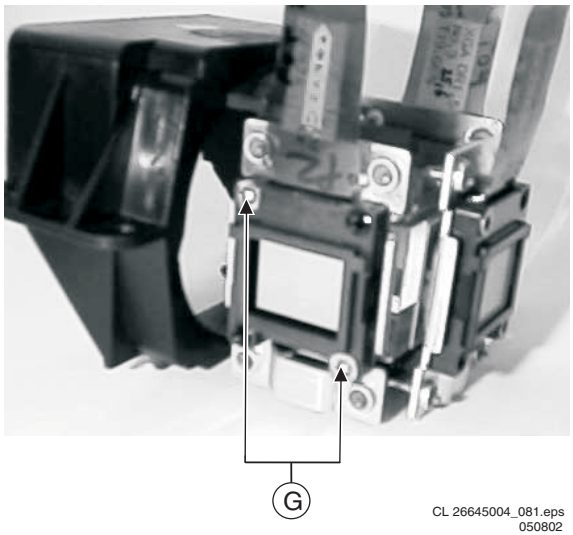
**Changing the screws**

Remove the reco-unit from the engine by removing the 4 screws (F) (page 8.1).
Now remove the 2 screws G from the LCD panel to be aligned.
Now fix the LCD panel with 2 special screws (H), which are both fixed in the top holes of the LCD panel.
Place the reco unit back into the engine.

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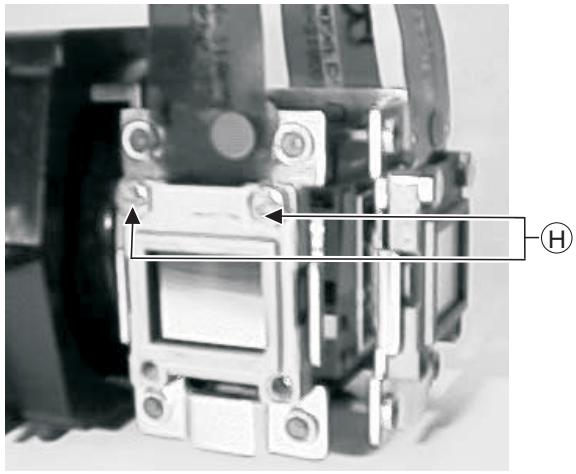


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**Aligning the convergence**

With a the key (I), the 2 screws (H) can be loosened from the top. This is a critical action: the crews have to be loosed so that the LCD can be moved with some friction.

Now clamp the manipulator over the LCD panel. With the manipulator the LCD can be moved into the correct position. If the movement is too light or too difficult, readjust the tightness of screws (H).

Adjustment can best be done in the following order.

Lift the LCD up, so that the picture is below the original picture.

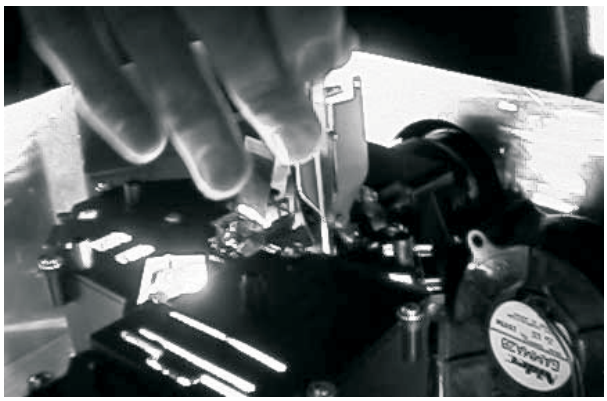
Now rotate the LCD, so that the vertical lines are parallel to the vertical lines of the original.

Now adjust the picture left/right, so that the sides match the sides of the original.

Now carefully push the LCD panel down, keeping the sides parallel, until the picture is correct.

If you do not get the required result, sometimes a small correction can be done, but otherwise it is better to start over again.

If the convergence is within specification (< 1 pixel), carefully fix the screws (H), to fix the LCD. If necessary fix the LCD with some glue or lacquer, before fixing the screws.



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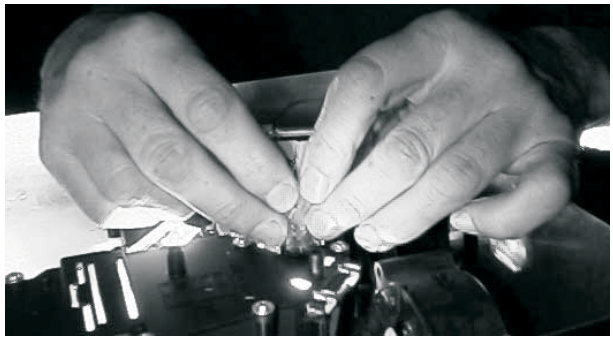

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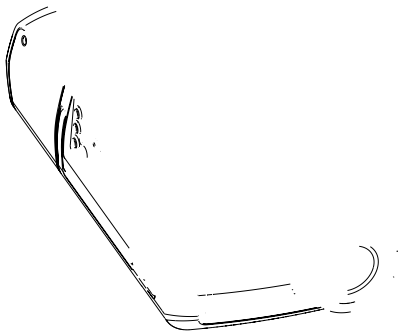
# 9. Parts list

**Mechanical parts**

| | | |
|---|---|---|
| 2 | TOP ASSY | 3103 437 50600 |
| 2 | TOP ASSY ML | 3103 437 50920 |
| 2-3 | IR LENS | 3122 434 01750 |
| 2-4 | IR GLASS | 3122 434 21400 |
| 2-5 | CONTROL KNOBS | 3122 434 21390 |
| 3 $ | FRONT COVER LACQUERED | 3122 438 11850 |
| 4 | Side Assy Garbo | 3103 437 50610 |
| 4 | Side Assy ML | 3103 437 50930 |
| 5 | IO Side Assy Garbo | 3103 437 50620 |
| 5 | IO Side Assy ML | 3103 437 50940 |
| 11 | ZOOM RING LACQUERED | 3122 438 11910 |
| 12 | FOCUS RING ASSY | 3103 437 50630 |
| 1001 | Keyboard board | 3122 438 51170 |
| 1002 | IR-receiver board | 3122 438 51180 |



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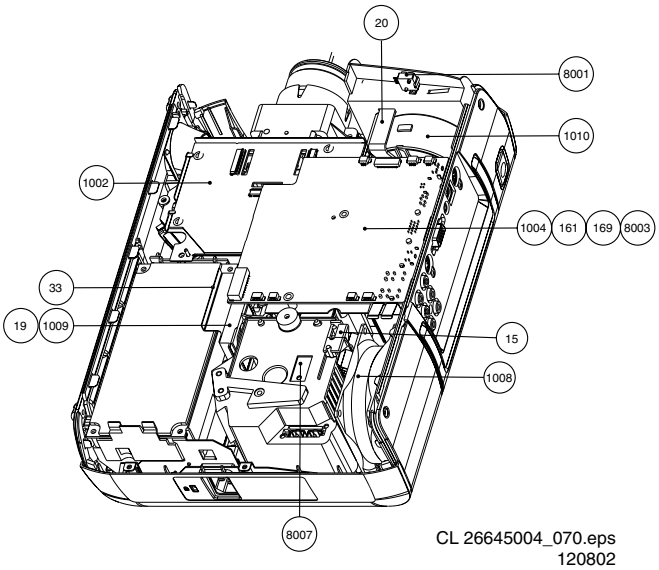
| | | |
|---|---|---|
| 25 | AIR GUIDE ASSY | 3122 437 16420 |
| 26 $ | BRACKET PS | 3122 434 01770 |
| 35-1 $ | HOUSING DUST FILTER | 3122 434 01590 |
| 35-2 $ | frame dust filter | 3103 437 50760 |
| 35-2 $ | frame dust filter ML | 3103 437 50890 |
| 35-3 $ | Dust filter (foam) | 3122 434 01570 |
| 35-4 | FILTER RETAINER | 3122 433 70600 |
| 36 | Safety bracket | 3122 434 02030 |
| 1001 $ | POWER SUPPLY MODULE | 3122 438 00060 |
| 1006 $ | Lamp supply 132W SV1 | 9137 001 48403 |

| | | |
|---|---|---|
| 15 $ | LIGHT SHIELD | 3122 434 21600 |
| 19 $ | BRACKET FAN PCS | 3122 434 01560 |
| 20 $ | LCD FAN BRACKET | 3122 434 01740 |
| 33 | CABLE RETAINER | 3122 433 70620 |
| 1002 | PCA DRB SVGA ED2 STER | 3122 438 51420 |
| 1004 | PCA SSB LC6231 | 3122 438 51150 |
| 1004 | PCA SSB LC7181 | 3122 438 50910 |
| 1008 $ | FAN ASSY S10-MAIN FAN | 3122 437 51250 |
| 1009 $ | FAN ASSY S12-PCS FAN | 3122 437 51260 |
| 1010 $ | FAN ASSY S13-LCD FAN | 3122 437 51270 |
| 8001 $ | Dust filter switch | 3122 431 01820 |
| 8007 $ | Temperature switch + cable | 3122 431 01680 |

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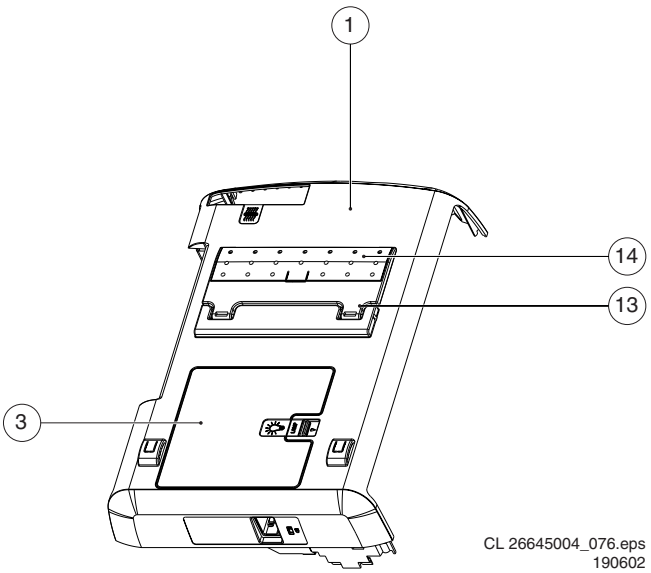
| | | |
|---|---|---|
| 1 | BOTTOM ASSY | 3103 437 50590 |
| 1 | BOTTOM ASSY ML | 3103 437 50910 |
| 3 $ | LAMPDOOR | 3103 437 50660 |
| 3 $ | LAMPDOOR ML | 3103 437 50830 |
| 13 $ | FOOT LEG | 3103 437 50680 |
| 13 $ | FOOT LEG ML | 3103 437 50850 |
| 14 $ | FRONT FOOT | 3103 434 20010 |



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**Cables**

| | | |
|---|---|---|
| 8001 $ | WIRE ASSY #3 MAINS-K3 | 3122 431 01730 |
| 8003 $ | Cable SSB/keyboard | 3122 431 01840 |
| 8004 $ | WIRE ASSY #4 K04-S04 | 3122 431 01740 |
| 8001 $ | Cable keyboard/IR-board | 3122 431 01780 |

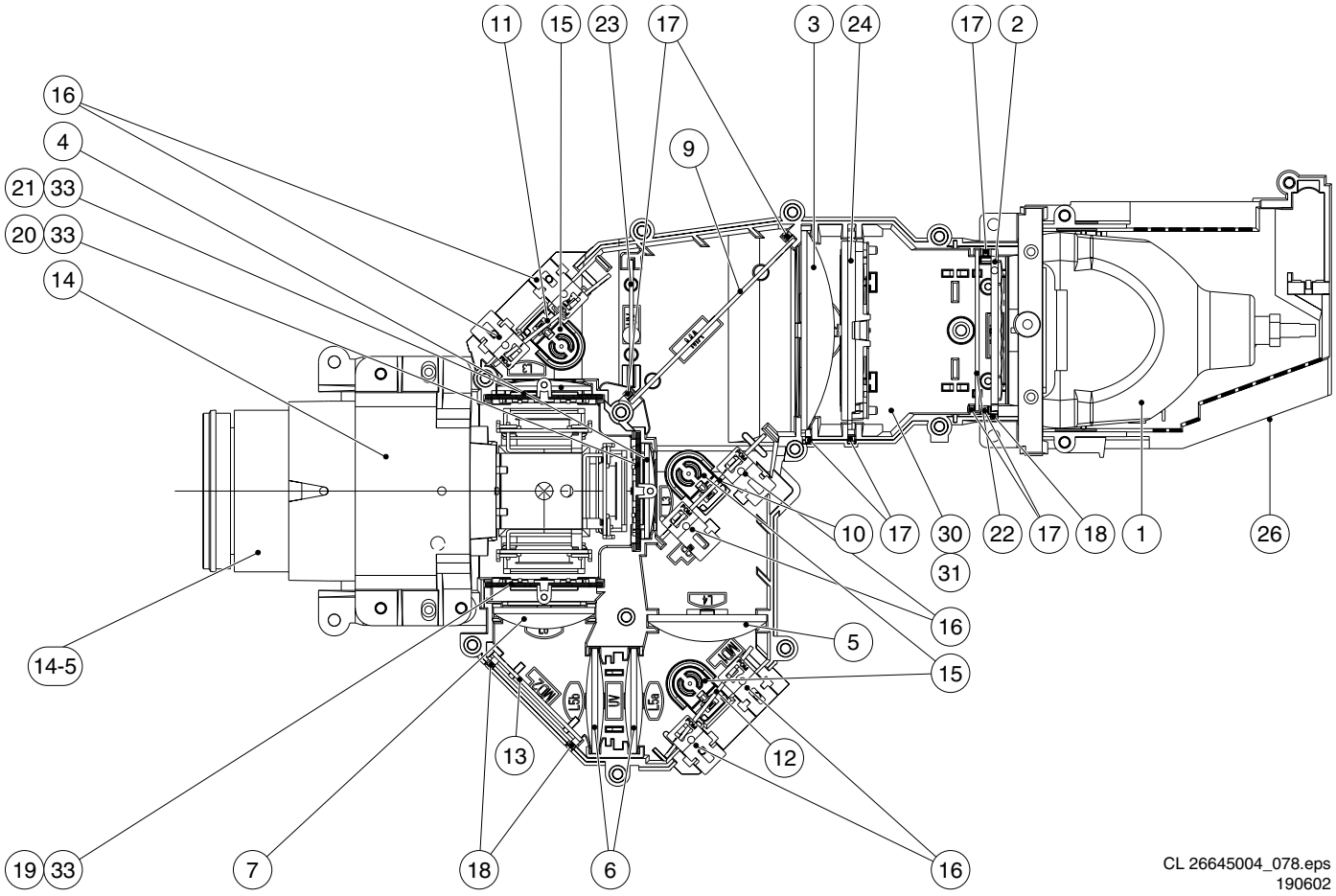
**Packaging**

| | | |
|---|---|---|
| 451 | Carton box | 3103 436 70080 |
| 451 | Carton box ML | 3103 436 70090 |
| 452 | front-rear cushion | 3122 126 40760 |
| 464 | Outer box | 3122 126 40370 |

**Accessories**

| | | |
|---|---|---|
| 1-1 $ | Mains cord Euro | 4822 321 11399 |
| 1-1 $ | Mains cord USA | 4822 321 11294 |
| 1-1 $ | Mains cord UK | 4822 321 11431 |
| 1-2 | VGA Cable | 3122 438 75110 |
| 1-3 | AV cable | 3122 438 71090 |
| 1-4 | RCA JACK converter | 3122 438 75130 |
| 1-6 | RCA/SCART connector | 2422 033 00345 |
| 1-7 | S-video (Y/C) cable | 3122 438 75140 |
| 2 | DFU CD-ROM | 3103 438 70060 |
| 3 | QUICK SETUP CARD | 3103 435 90020 |
| 3 | QUICK SETUP CARD ML | 3103 435 90060 |
| 4 | DFU paper | 3103 435 90030 |
| 4 | DFU paper ML | 3103 435 90070 |
| 5 | CD-ROM wall paper | 3103 435 90040 |
| 466 | LENS CAP | 3122 434 21540 |
| 1002 | Remote control | 3139 228 60500 |
| 1002 | Remote control PRONTO NEO | 3104 207 13810 |

# Optical Parts

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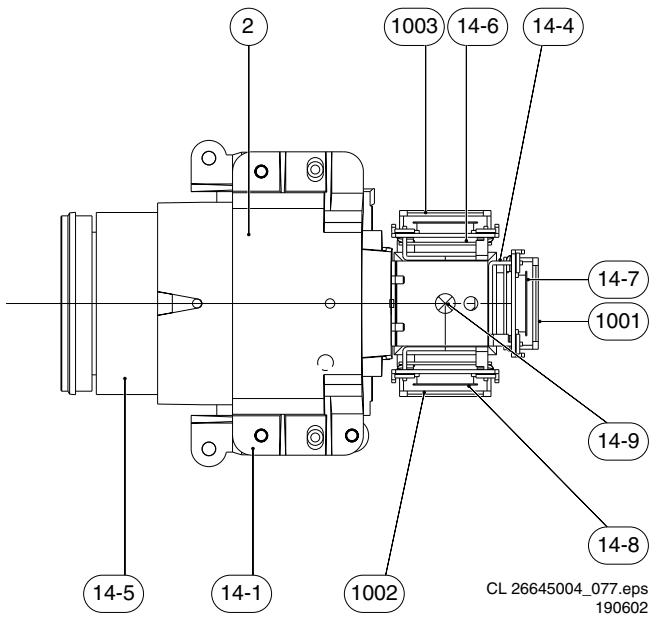


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| | | |
|---|---|---|
| 1 | Lamp LCA3116/00 SV1 | 8670 931 16009 |
| 2 | Integrator | 3122 434 96230 |
| 3 | Lens 2 | 3122 434 90920 |
| 4 | Lens 3 | 3122 434 96150 |
| 5 | Lens 4 Red | 3122 434 96160 |
| 6 | Lens 5 | 3103 434 90290 |
| 7 | Lens 6 | 3103 434 90320 |
| 8 | Compensation Plate | 3103 434 90300 |
| 9 | Mirror A | 3122 434 92690 |
| 10 | Mirror B | 3122 434 92700 |
| 11 | Mirror C | 3122 434 92710 |
| 12 | Mirror D1 | 3122 434 92720 |
| 13 | Mirror D2 | 3122 434 92730 |
| 14-1 | Flange | 3122 434 01660 |
| 14-4 | Adjust Plate Bottom | 3122 431 35390 |
| 14-5 | Projection Lens F1,8 | 3122 434 90810 |
| 14-6 | Analyser Red Assy | 3122 438 11710 |
| 14-7 | Analyser Green Assy | 3122 438 11580 |
| 14-8 | Analyser Blue Assy | 3122 438 11590 |
| 14-9 | Dichroic X-Prism | 3122 434 91560 |
| 15 | M-Adjuster Bottom | 3122 434 01470 |
| 16 | Mirror-Adjuster | 3122 434 10370 |
| 17 | M-Stopper 1 | 3122 431 30930 |
| 18 | M-Stopper 2 | 3122 431 30690 |
| 19 | Polariser Red Assy | 3122 438 11740 |
| 20 | Polariser Green Assy | 3122 438 11610 |
| 21 | Polariser Blue Assy | 3122 438 11620 |
| 22 | UV-IR Filter | 3122 434 94410 |
| 23 | UV-Dichroic Filter | 3122 434 94510 |
| 24 | Integrator-PBS Assy | 3103 437 50570 |
| 26 | Lamp Cage | 3122 434 01690 |
| 30 | U-Base | 3122 434 01700 |
| 31 | U-Base Cover | 3122 434 01710 |
| 33 | Polaroid Holder | 3122 434 01730 |

**LCD Panels**

| | | |
|---|---|---|
| 1001 | LCD L3d07s-21g01g | 3122 430 02950 |
| 1002 | LCD L3d07s-21g01r | 3122 430 02960 |
| 1003 | LCD L3d07s-21g01b | 3122 430 02970 |

## Small Signal Board

**Connectors**

| | | |
|---|---|---|
| 1210 | VGA input | 4822 267 51477 |
| 1300 | 6 * cinch video in | 2422 026 05289 |
| 1320 | Y/C - SVHS | 4822 267 10994 |
| 1410 | Driveboard BTB | 2422 025 17279 |
| 1600 | Power supply | 2422 025 16545 |
| 1620 | Temp switch | 2422 025 15369 |
| 1710 | keyboard | 2422 025 17501 |
| 1720 | PS2 | 2422 026 05257 |
| 1730 | USB | 2422 025 16606 |
| 1840 | Phono 3.5 mm | 4822 267 10985 |
| 1860 | Temp switch | 2422 025 15369 |
| 1902 | Lamp driver | 2422 025 16493 |
| 1910 | Lamp driver | 2422 025 16493 |
| 1911 | Temp switch | 2422 025 15369 |
| 1913 | Lamp driver | 2422 025 16493 |
| 1914 | Temp switch | 2422 025 15369 |

**X-tals**

| | | |
|---|---|---|
| 1921 | RES XTL 24M576 | 2422 543 89017 |

**Capacitors**

| | | |
|---|---|---|
| 2000 | 0603 50V 100NP80M | 2238 586 59812 |
| 2002 | 10UF 16V | 4822 124 23002 |
| 2004 | 0603 50V 100NP80M | 2238 586 59812 |
| 2006 | 0603 50V 100NP80M | 2238 586 59812 |
| 2008 | 0603 50V 100NP80M | 2238 586 59812 |
| 2010 | 0603 50V 100NP80M | 2238 586 59812 |
| 2012 | 10UF 16V | 4822 124 23002 |
| 2016 | 0603 50V 100NP80M | 2238 586 59812 |
| 2018 | 10UF 16V | 4822 124 23002 |
| 2020 | 0603 50V 100NP80M | 2238 586 59812 |
| 2024 | 0603 50V 100NP80M | 2238 586 59812 |
| 2026 | 0603 50V 100NP80M | 2238 586 59812 |
| 2028 | 0603 NP0 50V 100P | 2020 552 94427 |
| 2030 | 0603 NP0 50V 100P | 2020 552 94427 |
| 2032 | 1UF +80-20% 16V 0805 | 4822 126 14043 |
| 2034 | 22UF 6.3V | 4822 124 23237 |
| 2036 | 22UF 6.3V | 4822 124 23237 |
| 2116 | 0603 50V 100NP80M | 2238 586 59812 |
| 2118 | 33UF 20% 10V | 4822 124 12077 |
| 2120 | 0603 50V 100NP80M | 2238 586 59812 |
| 2122 | 0603 50V 100NP80M | 2238 586 59812 |
| 2134 | 0603 50V 100NP80M | 2238 586 59812 |
| 2136 | 10UF 16V | 4822 124 23002 |
| 2138 | 10UF 16V | 4822 124 23002 |
| 2140 | 0603 50V 100NP80M | 2238 586 59812 |
| 2200 | 0603 50V 100NP80M | 2238 586 59812 |
| 2201 | 0603 50V 100NP80M | 2238 586 59812 |
| 2202 | 0603 50V 100NP80M | 2238 586 59812 |
| 2203 | 0603 50V 100NP80M | 2238 586 59812 |
| 2204 | 0603 50V 100NP80M | 2238 586 59812 |
| 2205 | 0603 50V 100NP80M | 2238 586 59812 |
| 2206 | 0603 50V 100NP80M | 2238 586 59812 |
| 2207 | 0603 50V 100NP80M | 2238 586 59812 |
| 2209 | 0603 50V 100NP80M | 2238 586 59812 |
| 2210 | 0603 50V 100NP80M | 2238 586 59812 |
| 2211 | 0603 50V 100NP80M | 2238 586 59812 |
| 2212 | 0603 50V 100NP80M | 2238 586 59812 |
| 2213 | 0603 50V 100NP80M | 2238 586 59812 |
| 2214 | 0603 50V 100NP80M | 2238 586 59812 |
| 2215 | 0603 50V 100NP80M | 2238 586 59812 |
| 2216 | 0603 50V 100NP80M | 2238 586 59812 |
| 2217 | 0603 50V 100NP80M | 2238 586 59812 |
| 2218 | 10UF 16V | 4822 124 23002 |
| 2219 | 0603 50V 100NP80M | 2238 586 59812 |
| 2220 | 10UF 16V | 4822 124 23002 |
| 2221 | 0603 50V 100NP80M | 2238 586 59812 |
| 2223 | 10UF 16V | 4822 124 23002 |
| 2224 | 0603 50V 100NP80M | 2238 586 59812 |
| 2225 | 10UF 16V | 4822 124 23002 |
| 2226 | 0603 16V 47N COL | 3198 017 34730 |
| 2227 | 0603 50V 100NP80M | 2238 586 59812 |
| 2228 | 0603 16V 47N COL | 3198 017 34730 |
| 2229 | 0603 50V 100NP80M | 2238 586 59812 |
| 2230 | 0603 16V 47N COL | 3198 017 34730 |
| 2231 | 0603 50V 100NP80M | 2238 586 59812 |
| 2233 | 1NF 10% 50V 0603 | 5322 126 11578 |
| 2235 | 6,8NF10%X7R 63V | 5322 126 11582 |
| 2236 | 33N 16V O6O3 | 4822 126 14549 |
| 2237 | 3,3NF10%X7R 63V | 5322 126 11579 |
| 2238 | 0603 NP0 25V 680P | 3198 016 36810 |
| 2239 | 0603 50V 100NP80M | 2238 586 59812 |
| 2300 | 0603 50V 100NP80M | 2238 586 59812 |
| 2302 | 10UF 16V | 4822 124 23002 |
| 2304 | 47UF 16V | 4822 124 80151 |
| 2305 | 47UF 16V | 4822 124 80151 |
| 2306 | 0603 50V 100NP80M | 2238 586 59812 |
| 2308 | 0603 50V 100NP80M | 2238 586 59812 |
| 2310 | 47UF20% 4V | 4822 124 81058 |
| 2312 | 0603 50V 100NP80M | 2238 586 59812 |
| 2314 | 0603 50V 100NP80M | 2238 586 59812 |
| 2316 | 0603 50V 100NP80M | 2238 586 59812 |
| 2318 | 0603 50V 100NP80M | 2238 586 59812 |
| 2328 | 0603 16V 47N COL | 3198 017 34730 |
| 2330 | 0603 16V 47N COL | 3198 017 34730 |
| 2332 | 0603 16V 47N COL | 3198 017 34730 |
| 2334 | 0603 16V 47N COL | 3198 017 34730 |
| 2336 | 0603 16V 47N COL | 3198 017 34730 |
| 2338 | 0603 16V 47N COL | 3198 017 34730 |
| 2340 | 0603 16V 47N COL | 3198 017 34730 |
| 2342 | 0603 16V 47N COL | 3198 017 34730 |
| 2344 | 0603 16V 47N COL | 3198 017 34730 |
| 2346 | 0603 16V 47N COL | 3198 017 34730 |
| 2348 | 0603 16V 47N COL | 3198 017 34730 |
| 2350 | 0603 16V 47N COL | 3198 017 34730 |
| 2352 | 0603 16V 47N COL | 3198 017 34730 |
| 2354 | 0603 16V 47N COL | 3198 017 34730 |
| 2356 | 0603 16V 47N COL | 3198 017 34730 |
| 2358 | 0603 16V 47N COL | 3198 017 34730 |
| 2364 | 0603 NP0 50V 33P | 2222 867 15339 |
| 2366 | 0603 NP0 50V 33P | 2222 867 15339 |
| 2368 | 0603 NP0 25V 1N | 3198 016 31020 |
| 2400 | 0603 50V 100NP80M | 2238 586 59812 |
| 2401 | 0603 50V 100NP80M | 2238 586 59812 |
| 2402 | 0603 50V 100NP80M | 2238 586 59812 |
| 2403 | 0603 50V 100NP80M | 2238 586 59812 |
| 2404 | 22UF 6.3V | 4822 124 23237 |
| 2405 | 0603 50V 100NP80M | 2238 586 59812 |
| 2406 | 0603 50V 100NP80M | 2238 586 59812 |
| 2407 | 0603 50V 100NP80M | 2238 586 59812 |
| 2408 | 0603 50V 100NP80M | 2238 586 59812 |
| 2409 | 22UF 6.3V | 4822 124 23237 |
| 2411 | 0603 50V 100NP80M | 2238 586 59812 |
| 2412 | 0603 50V 100NP80M | 2238 586 59812 |
| 2413 | 0603 50V 100NP80M | 2238 586 59812 |
| 2414 | 0603 50V 100NP80M | 2238 586 59812 |
| 2415 | 0603 50V 100NP80M | 2238 586 59812 |
| 2416 | 0603 50V 100NP80M | 2238 586 59812 |
| 2417 | 0603 50V 100NP80M | 2238 586 59812 |
| 2418 | 0603 50V 100NP80M | 2238 586 59812 |
| 2419 | 0603 50V 100NP80M | 2238 586 59812 |
| 2420 | 0603 50V 100NP80M | 2238 586 59812 |
| 2421 | 0603 50V 100NP80M | 2238 586 59812 |
| 2500 | 0603 50V 100NP80M | 2238 586 59812 |
| 2504 | 0603 50V 100NP80M | 2238 586 59812 |
| 2510 | 0603 50V 100NP80M | 2238 586 59812 |
| 2514 | 0603 50V 100NP80M | 2238 586 59812 |
| 2516 | 10UF 16V | 4822 124 23002 |
| 2600 | 10UF 16V | 4822 124 23002 |
| 2602 | 10NF 10% 50V 0603 | 5322 126 11583 |
| 2604 | 0603 50V 100NP80M | 2238 586 59812 |
| 2606 | 10UF 16V | 4822 124 23002 |
| 2608 | 0603 50V 100NP80M | 2238 586 59812 |
| 2610 | 10UF 16V | 4822 124 23002 |
| 2612 | 10NF 10% 50V 0603 | 5322 126 11583 |
| 2614 | 0603 50V 100NP80M | 2238 586 59812 |
| 2616 | 10NF 10% 50V 0603 | 5322 126 11583 |
| 2620 | 3,3NF10%X7R 63V | 5322 126 11579 |
| 2622 | 10NF 10% 50V 0603 | 5322 126 11583 |
| 2624 | 0603 50V 100NP80M | 2238 586 59812 |
| 2626 | 100UF 10V 20% | 4822 124 12318 |
| 2628 | 100UF 10V 20% | 4822 124 12318 |
| 2630 | 47UF 16V | 4822 124 80151 |
| 2632 | 47UF 16V | 4822 124 80151 |
| 2634 | 10UF 16V | 4822 124 23002 |
| 2636 | 0603 50V 100NP80M | 2238 586 59812 |
| 2638 | 10UF 16V | 4822 124 23002 |
| 2640 | 0603 50V 100NP80M | 2238 586 59812 |
| 2642 | 47UF 16V | 4822 124 80151 |
| 2644 | 47UF 16V | 4822 124 80151 |
| 2646 | 10UF 16V | 4822 124 23002 |
| 2648 | 0603 50V 100NP80M | 2238 586 59812 |
| 2650 | 47UF20% 4V | 4822 124 81058 |
| 2652 | 0603 50V 100NP80M | 2238 586 59812 |
| 2654 | 47UF 16V | 4822 124 80151 |
| 2656 | 47UF 16V | 4822 124 80151 |
| 2658 | 47UF 16V | 4822 124 80151 |
| 2660 | 47UF 16V | 4822 124 80151 |
| 2662 | 0603 50V 100NP80M | 2238 586 59812 |
| 2716 | 0603 NP0 50V 100P | 2020 552 94427 |
| 2725 | 0603 NP0 50V 100P | 2020 552 94427 |
| 2726 | 0603 NP0 50V 100P | 2020 552 94427 |
| 2727 | 0603 50V 100NP80M | 2238 586 59812 |
| 2729 | 0603 50V 100NP80M | 2238 586 59812 |
| 2731 | 10UF 16V | 4822 124 23002 |
| 2733 | 0603 50V 100NP80M | 2238 586 59812 |
| 2735 | 0603 50V 100NP80M | 2238 586 59812 |
| 2737 | 470PF 5% 50V | 4822 126 13881 |
| 2741 | 0603 NP0 50V 100P | 2020 552 94427 |
| 2743 | 10UF 16V | 4822 124 23002 |
| 2747 | 0603 50V 100NP80M | 2238 586 59812 |
| 2749 | 0603 50V 100NP80M | 2238 586 59812 |
| 2800 | 0603 50V 100NP80M | 2238 586 59812 |
| 2802 | 0603 50V 100NP80M | 2238 586 59812 |
| 2804 | 33UF 20V 20% | 4822 124 12316 |
| 2806 | 0603 50V 2N2 COL R | 4822 126 14238 |
| 2808 | 100UF 20% 16V | 4822 124 12095 |
| 2810 | 100UF 20% 16V | 4822 124 12095 |
| 2818 | 0603 50V 100NP80M | 2238 586 59812 |
| 2820 | 0603 50V 100NP80M | 2238 586 59812 |
| 2848 | 33UF 20V 20% | 4822 124 12316 |

| | | |
|---|---|---|
| 2852 | 220NF +80-20% 16V | 4822 126 13879 |
| 2854 | 0603 50V 100NP80M | 2238 586 59812 |
| 2856 | 0603 50V 100NP80M | 2238 586 59812 |
| 2858 | 0603 16V 47N COL | 3198 017 34730 |
| 2860 | 0603 50V 100NP80M | 2238 586 59812 |
| 2862 | 0603 50V 100NP80M | 2238 586 59812 |
| 2864 | 0603 50V 100NP80M | 2238 586 59812 |
| 2866 | 0603 50V 100NP80M | 2238 586 59812 |
| 2868 | 0603 50V 100NP80M | 2238 586 59812 |
| 2870 | 0603 50V 2N2 COL R | 4822 126 14238 |
| 2872 | 0603 NPO 50V 330P | 4822 126 14241 |
| 2874 | 0603 NPO 50V 330P | 4822 126 14241 |
| 2876 | 0603 NPO 50V 330P | 4822 126 14241 |
| 2878 | 0603 NPO 50V 330P | 4822 126 14241 |
| 2880 | 1NF 10% 50V 0603 | 5322 126 11578 |
| 2881 | 1NF 10% 50V 0603 | 5322 126 11578 |
| 2882 | 1NF 10% 50V 0603 | 5322 126 11578 |
| 2883 | 1NF 10% 50V 0603 | 5322 126 11578 |
| 2900 | 0603 50V 100NP80M | 2238 586 59812 |
| 2902 | 10UF 16V | 4822 124 23002 |
| 2904 | 0603 50V 100NP80M | 2238 586 59812 |
| 2906 | 47UF 16V | 4822 124 80151 |
| 2910 | 10NF 10% 50V 0603 | 5322 126 11583 |
| 2912 | 0603 50V 100NP80M | 2238 586 59812 |
| 2914 | 10UF 16V | 4822 124 23002 |
| 2916 | 33UF 20V 20% | 4822 124 12316 |
| 2918 | 10NF 10% 50V 0603 | 5322 126 11583 |
| 2920 | 0603 50V 100NP80M | 2238 586 59812 |
| 2922 | 10UF 16V | 4822 124 23002 |
| 2924 | 10UF 16V | 4822 124 23002 |
| 2926 | 47UF 16V | 4822 124 80151 |
| 2928 | 10NF 10% 50V 0603 | 5322 126 11583 |
| 2930 | 0603 NP0 50V 100P | 2020 552 94427 |
| 2932 | 0603 50V 100NP80M | 2238 586 59812 |
| 2936 | 0603 50V 100NP80M | 2238 586 59812 |
| 2937 | 0603 50V 100NP80M | 2238 586 59812 |
| 2946 | 0603 50V 100NP80M | 2238 586 59812 |

**Resistors**

| | | |
|---|---|---|
| 3000 | 10K00 5% 0,062W | 4822 051 30103 |
| 3002 | 100R00 5% 0,062W | 4822 051 30101 |
| 3004 | 10K00 5% 0,062W | 4822 051 30103 |
| 3006 | 75R 1% 0,1W | 4822 117 11927 |
| 3007 | 100R00 5% 0,062W | 4822 051 30101 |
| 3008 | 100R00 5% 0,062W | 4822 051 30101 |
| 3009 | 100R00 5% 0,062W | 4822 051 30101 |
| 3012 | 100R00 5% 0,062W | 4822 051 30101 |
| 3014 | 330R00 5% 0,062W | 4822 051 30331 |
| 3016 | 100R00 5% 0,062W | 4822 051 30101 |
| 3018 | 100R00 5% 0,062W | 4822 051 30101 |
| 3020 | 10K00 5% 0,062W | 4822 051 30103 |
| 3028 | 10K00 5% 0,062W | 4822 051 30103 |
| 3030 | 75R 1% 0,1W | 4822 117 11927 |
| 3032 | 1K00 5% 0,062W | 4822 051 30102 |
| 3034 | 1R 5% 0,062W 0603 | 4822 117 12917 |
| 3036 | 4K70 5% 0,062W | 4822 051 30472 |
| 3038 | 33K00 5% 0,062W | 4822 051 30333 |
| 3040 | 330R00 5% 0,062W | 4822 051 30331 |
| 3042 | 2K20 5% 0,062W | 4822 051 30222 |
| 3044 | 2K20 5% 0,062W | 4822 051 30222 |
| 3046 | 100R00 5% 0,062W | 4822 051 30101 |
| 3048 | 100R00 5% 0,062W | 4822 051 30101 |
| 3054 | 75R 1% 0,1W | 4822 117 11927 |
| 3056 | 2K20 5% 0,062W | 4822 051 30222 |
| 3058 | 330R00 5% 0,062W | 4822 051 30331 |
| 3060 | 100R00 5% 0,062W | 4822 051 30101 |
| 3062 | 10K00 5% 0,062W | 4822 051 30103 |
| 3064 | 47K 1% 0.063W 0603 | 4822 117 12925 |
| 3066 | 10K00 5% 0,062W | 4822 051 30103 |
| 3068 | 10K00 5% 0,062W | 4822 051 30103 |
| 3070 | 22K00 5% 0,062W | 4822 051 30223 |
| 3072 | 4K70 5% 0,062W | 4822 051 30472 |
| 3074 | 2K20 5% 0,062W | 4822 051 30222 |
| 3076 | 47K 1% 0.063W 0603 | 4822 117 12925 |
| 3078 | 100R00 5% 0,062W | 4822 051 30101 |
| 3080 | 100R00 5% 0,062W | 4822 051 30101 |
| 3086 | 15K 1% 0.063W 0603 | 5322 117 13033 |
| 3088 | 15K 1% 0.063W 0603 | 5322 117 13033 |
| 3090 | 10K 1% 0.063W 0603 | 4822 117 12706 |
| 3092 | 1K00 5% 0,062W | 4822 051 30102 |
| 3094 | 1K00 5% 0,062W | 4822 051 30102 |
| 3110 | 1K50 5% 0,062W | 4822 051 30152 |
| 3112 | RST NETW 4X22R | 2350 035 10229 |
| 3124 | 33R00 5% 0,062W | 4822 051 30339 |
| 3130 | 470R00 5% 0,062W | 4822 051 30471 |
| 3138 | RST NETW 4X15K | 2350 035 10153 |
| 3144 | RST NETW 4X15K | 2350 035 10153 |
| 3200 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3205 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3210 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3214 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3218 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3221 | 68R 5% 0,063W 0603 | 4822 051 30689 |
| 3223 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3226 | 68R 5% 0,063W 0603 | 4822 051 30689 |
| 3229 | 68R 5% 0,063W 0603 | 4822 051 30689 |
| 3230 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3231 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3235 | 100R00 5% 0,062W | 4822 051 30101 |
| 3236 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3237 | 100R00 5% 0,062W | 4822 051 30101 |
| 3239 | 100R00 5% 0,062W | 4822 051 30101 |
| 3242 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3243 | 10K00 5% 0,062W | 4822 051 30103 |
| 3245 | 10K00 5% 0,062W | 4822 051 30103 |
| 3247 | 3K30 5% 0,062W | 4822 051 30332 |
| 3249 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3250 | 100R00 5% 0,062W | 4822 051 30101 |
| 3252 | 100R00 5% 0,062W | 4822 051 30101 |
| 3255 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3259 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3300 | 4K70 5% 0,062W | 4822 051 30472 |
| 3301 | 18R00 2% 0,25W | 4822 051 10189 |
| 3302 | 18R00 2% 0,25W | 4822 051 10189 |
| 3303 | 18R00 2% 0,25W | 4822 051 10189 |
| 3304 | 18R00 2% 0,25W | 4822 051 10189 |
| 3305 | 18R00 2% 0,25W | 4822 051 10189 |
| 3307 | 18R00 2% 0,25W | 4822 051 10189 |
| 3309 | 56R00 2% 0,25W | 4822 051 10569 |
| 3311 | 56R00 2% 0,25W | 4822 051 10569 |
| 3312 | RST NETW 4X47R | 2350 035 10479 |
| 3313 | 56R00 2% 0,25W | 4822 051 10569 |
| 3314 | RST NETW 4X47R | 2350 035 10479 |
| 3315 | 56R00 2% 0,25W | 4822 051 10569 |
| 3316 | RST NETW 4X47R | 2350 035 10479 |
| 3317 | 56R00 2% 0,25W | 4822 051 10569 |
| 3319 | 56R00 2% 0,25W | 4822 051 10569 |
| 3321 | 470R00 5% 0,062W | 4822 051 30471 |
| 3323 | 3K30 5% 0,062W | 4822 051 30332 |
| 3325 | RST NETW 4X47R | 2350 035 10479 |
| 3327 | RST NETW 4X47R | 2350 035 10479 |
| 3341 | 100R00 5% 0,062W | 4822 051 30101 |
| 3342 | 100R00 5% 0,062W | 4822 051 30101 |
| 3401 | 470R00 5% 0,062W | 4822 051 30471 |
| 3403 | 470R00 5% 0,062W | 4822 051 30471 |
| 3404 | 1K00 5% 0,062W | 4822 051 30102 |
| 3410 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3414 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3416 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3420 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3424 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3428 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3438 | NETW 4 X 33R 5% 1206 | 4822 117 13576 |
| 3447 | 0R00 JUMPER | 4822 051 30008 |
| 3449 | 0R00 JUMPER | 4822 051 30008 |
| 3450 | 4K70 5% 0,062W | 4822 051 30472 |
| 3454 | RST NETW 4X47R | 2350 035 10479 |
| 3455 | RST NETW 4X47R | 2350 035 10479 |
| 3457 | 4K70 5% 0,062W | 4822 051 30472 |
| 3458 | 4K70 5% 0,062W | 4822 051 30472 |
| 3500 | 3K30 5% 0,062W | 4822 051 30332 |
| 3502 | 22K00 5% 0,062W | 4822 051 30223 |
| 3508 | 100R00 5% 0,062W | 4822 051 30101 |
| 3510 | 100R00 5% 0,062W | 4822 051 30101 |
| 3516 | 3K30 5% 0,062W | 4822 051 30332 |
| 3526 | 3K30 5% 0,062W | 4822 051 30332 |
| 3531 | 100R00 5% 0,062W | 4822 051 30101 |
| 3602 | 47R00 5% 0,062W | 4822 051 30479 |
| 3604 | 100R00 5% 0,062W | 4822 051 30101 |
| 3606 | 100R00 5% 0,062W | 4822 051 30101 |
| 3608 | 100R00 5% 0,062W | 4822 051 30101 |
| 3610 | 1R 5% 0,062W 0603 | 4822 117 12917 |
| 3612 | 100R00 5% 0,062W | 4822 051 30101 |
| 3614 | 4K70 5% 0,062W | 4822 051 30472 |
| 3616 | 3K30 5% 0,062W | 4822 051 30332 |
| 3618 | 4K70 5% 0,062W | 4822 051 30472 |
| 3620 | 4K70 5% 0,062W | 4822 051 30472 |
| 3622 | 3K30 5% 0,062W | 4822 051 30332 |
| 3624 | 100R00 5% 0,062W | 4822 051 30101 |
| 3626 | 4K70 5% 0,062W | 4822 051 30472 |
| 3628 | 100R00 5% 0,062W | 4822 051 30101 |
| 3630 | 3K30 5% 0,062W | 4822 051 30332 |
| 3636 | 100R00 5% 0,062W | 4822 051 30101 |
| 3640 | 4K70 5% 0,062W | 4822 051 30472 |
| 3664 | 1R 5% 0,062W 0603 | 4822 117 12917 |
| 3666 | 390R00 5% 0,062W | 4822 051 30391 |
| 3668 | 12K00 5% 0,062W | 4822 051 30123 |
| 3670 | 47R00 5% 0,062W | 4822 051 30479 |
| 3672 | 47R00 5% 0,062W | 4822 051 30479 |
| 3674 | 3K30 5% 0,062W | 4822 051 30332 |
| 3682 | 3K30 5% 0,062W | 4822 051 30332 |
| 3686 | 3K30 5% 0,062W | 4822 051 30332 |
| 3690 | 100R00 5% 0,062W | 4822 051 30101 |
| 3691 | 33R00 5% 0,062W | 4822 051 30339 |
| 3701 | 4K70 5% 0,062W | 4822 051 30472 |
| 3702 | 4K70 5% 0,062W | 4822 051 30472 |
| 3703 | 100K 1% 0603 0.62W | 4822 117 13632 |
| 3704 | 100K 1% 0603 0.62W | 4822 117 13632 |
| 3705 | 47K 1% 0.063W 0603 | 4822 117 12925 |
| 3706 | 47K 1% 0.063W 0603 | 4822 117 12925 |
| 3707 | 4K70 5% 0,062W | 4822 051 30472 |
| 3709 | 4K70 5% 0,062W | 4822 051 30472 |
| 3711 | 4K70 5% 0,062W | 4822 051 30472 |
| 3719 | 4K70 5% 0,062W | 4822 051 30472 |

| | | |
|---|---|---|
| 3721 | RST NETW 4X4K7 | 2350 035 10472 |
| 3727 | 1K50 5% 0,062W | 4822 051 30152 |
| 3728 | RST NETW 4X470R | 2350 035 10471 |
| 3729 | 470R00 5% 0,062W | 4822 051 30471 |
| 3730 | 4K70 5% 0,062W | 4822 051 30472 |
| 3731 | 4K70 5% 0,062W | 4822 051 30472 |
| 3732 | 100R00 5% 0,062W | 4822 051 30101 |
| 3733 | 1K50 5% 0,062W | 4822 051 30152 |
| 3734 | 10K00 5% 0,062W | 4822 051 30103 |
| 3735 | 100R00 5% 0,062W | 4822 051 30101 |
| 3736 | 1R 5% 0,062W 0603 | 4822 117 12917 |
| 3737 | 220R00 5% 0,062W | 4822 051 30221 |
| 3738 | 4K70 5% 0,062W | 4822 051 30472 |
| 3739 | 5K6 5% 0,063W 0603 | 4822 051 30562 |
| 3740 | 10K00 5% 0,062W | 4822 051 30103 |
| 3741 | 56K00 5% 0,062W | 4822 051 30563 |
| 3742 | 22K00 5% 0,062W | 4822 051 30223 |
| 3745 | 4K70 5% 0,062W | 4822 051 30472 |
| 3747 | 100R00 5% 0,062W | 4822 051 30101 |
| 3749 | 100R00 5% 0,062W | 4822 051 30101 |
| 3750 | 0R00 JUMPER | 4822 051 30008 |
| 3800 | 4,7R 5% 0603 0,0016W | 4822 117 13608 |
| 3802 | 4,7R 5% 0603 0,0016W | 4822 117 13608 |
| 3804 | 4,7R 5% 0603 0,0016W | 4822 117 13608 |
| 3806 | 4,7R 5% 0603 0,0016W | 4822 117 13608 |
| 3808 | 3K9 5% 0.063W 0603 | 4822 051 30392 |
| 3810 | 4,7R 5% 0603 0,0016W | 4822 117 13608 |
| 3812 | 4,7R 5% 0603 0,0016W | 4822 117 13608 |
| 3814 | 4,7R 5% 0603 0,0016W | 4822 117 13608 |
| 3816 | 4,7R 5% 0603 0,0016W | 4822 117 13608 |
| 3818 | 15R 5% 0603 0,62W | 4822 117 12971 |
| 3820 | 15R 5% 0603 0,62W | 4822 117 12971 |
| 3822 | 1K00 5% 0,062W | 4822 051 30102 |
| 3824 | 10K00 5% 0,062W | 4822 051 30103 |
| 3826 | 100K 1% 0603 0.62W | 4822 117 13632 |
| 3844 | 100R00 5% 0,062W | 4822 051 30101 |
| 3846 | 680K00 5% 0,062W | 4822 051 30684 |
| 3848 | 100R00 5% 0,062W | 4822 051 30101 |
| 3850 | 0R00 JUMPER | 4822 051 30008 |
| 3854 | 1K00 5% 0,062W | 4822 051 30102 |
| 3856 | 0R00 JUMPER | 4822 051 30008 |
| 3860 | 100R00 5% 0,062W | 4822 051 30101 |
| 3862 | 100R00 5% 0,062W | 4822 051 30101 |
| 3864 | 3K9 5% 0.063W 0603 | 4822 051 30392 |
| 3866 | 3K30 5% 0,062W | 4822 051 30332 |
| 3868 | 1K00 5% 0,062W | 4822 051 30102 |
| 3870 | 1K00 5% 0,062W | 4822 051 30102 |
| 3872 | 220K 1% ERJ3E | 4822 117 12891 |
| 3874 | 220K 1% ERJ3E | 4822 117 12891 |
| 3876 | 3K30 5% 0,062W | 4822 051 30332 |
| 3878 | 100R00 5% 0,062W | 4822 051 30101 |
| 3880 | 1K00 5% 0,062W | 4822 051 30102 |
| 3882 | 100R00 5% 0,062W | 4822 051 30101 |
| 3884 | 1K00 5% 0,062W | 4822 051 30102 |
| 3886 | 220K 1% ERJ3E | 4822 117 12891 |
| 3888 | 220K 1% ERJ3E | 4822 117 12891 |
| 3890 | 100K 1% 0603 0.62W | 4822 117 13632 |
| 3891 | 100K 1% 0603 0.62W | 4822 117 13632 |
| 3892 | 100K 1% 0603 0.62W | 4822 117 13632 |
| 3893 | 100K 1% 0603 0.62W | 4822 117 13632 |
| 3894 | 10R00 5% 0,062W | 4822 051 30109 |
| 3900 | 4K70 5% 0,062W | 4822 051 30472 |
| 3902 | 1K0 1% 0.063W 0603 | 5322 117 13018 |
| 3906 | 4K7 1% 0.063W 0603 | 5322 117 13026 |
| 3908 | 100R00 5% 0,062W | 4822 051 30101 |
| 3910 | 22K 1% 0.063W 0603 | 5322 117 13022 |
| 3912 | 1K2 1% 1/16W | 4822 117 11817 |
| 3916 | 1K2 1% 1/16W | 4822 117 11817 |
| 3920 | 10R00 5% 0,062W | 4822 051 30109 |
| 3922 | 10K00 5% 0,062W | 4822 051 30103 |
| 3924 | 10K00 5% 0,062W | 4822 051 30103 |
| 3926 | 100R00 5% 0,062W | 4822 051 30101 |
| 3928 | 1K0 1% 0.063W 0603 | 5322 117 13018 |
| 3930 | 3K3 1% 0.063W 0603 | 5322 117 13048 |
| 3932 | 15K 1% 0.063W 0603 | 5322 117 13033 |
| 3938 | 1R 5% 0,062W 0603 | 4822 117 12917 |
| 3940 | 1R 5% 0,062W 0603 | 4822 117 12917 |
| 3942 | 1K0 1% 0.063W 0603 | 5322 117 13018 |
| 3944 | 47K 1% 0.063W 0603 | 4822 117 12925 |
| 3946 | 10K00 5% 0,062W | 4822 051 30103 |
| 3954 | 3K3 1% 0.063W 0603 | 5322 117 13048 |
| 3956 | 100R00 5% 0,062W | 4822 051 30101 |
| 3958 | 15K 1% 0.063W 0603 | 5322 117 13033 |
| 3960 | 100R00 5% 0,062W | 4822 051 30101 |
| 3962 | 100R00 5% 0,062W | 4822 051 30101 |
| 3964 | 560R00 5% 0,062W | 4822 051 30561 |
| 3972 | 4K70 5% 0,062W | 4822 051 30472 |
| 3974 | 4K70 5% 0,062W | 4822 051 30472 |
| 3976 | 100R00 5% 0,062W | 4822 051 30101 |
| 3978 | 100R00 5% 0,062W | 4822 051 30101 |
| 3980 | 10K00 5% 0,062W | 4822 051 30103 |
| 3982 | 10K00 5% 0,062W | 4822 051 30103 |
| 3984 | 47K 1% 0.063W 0603 | 4822 117 12925 |
| 3986 | 47K 1% 0.063W 0603 | 4822 117 12925 |
| 3988 | RST NETW 4X4K7 | 2350 035 10472 |
| 3990 | RST NETW 4X4K7 | 2350 035 10472 |
| 3991 | 6K80 5% 0,062W | 4822 051 30682 |
| 3992 | 47R00 5% 0,062W | 4822 051 30479 |
| 3993 | 33R00 5% 0,062W | 4822 051 30339 |

**Jumpers**

| | | |
|---|---|---|
| 4001 | 0R00 JUMPER | 4822 051 30008 |
| 4003 | 0R00 JUMPER | 4822 051 30008 |
| 4100 | 0R00 JUMPER | 4822 051 30008 |
| 4501 | 0R00 JUMPER | 4822 051 30008 |
| 4701 | 0R00 JUMPER | 4822 051 30008 |

**Coils & Transformers**

| | | |
|---|---|---|
| 5000 | BLM21A601SPT | 4822 157 71206 |
| 5002 | BLM21A601SPT | 4822 157 71206 |
| 5004 | BLM21A601SPT | 4822 157 71206 |
| 5006 | 1210 22U PM10 R | 2422 536 00164 |
| 5008 | 1210 22U PM10 R | 2422 536 00164 |
| 5010 | 4,7UH/20%) | 4822 157 10333 |
| 5106 | BLM21A601SPT | 4822 157 71206 |
| 5108 | BLM21A601SPT | 4822 157 71206 |
| 5110 | BLM21A601SPT | 4822 157 71206 |
| 5114 | 4,7UH/20%) | 4822 157 10333 |
| 5116 | BLM21A601SPT | 4822 157 71206 |
| 5201 | BLM21A601SPT | 4822 157 71206 |
| 5202 | BLM21A601SPT | 4822 157 71206 |
| 5203 | 1UH/20%) | 4822 157 11258 |
| 5205 | BLM21A601SPT | 4822 157 71206 |
| 5206 | 1UH/20%) | 4822 157 11258 |
| 5207 | BLM21A601SPT | 4822 157 71206 |
| 5208 | BLM21A121SPT | 4822 157 11506 |
| 5209 | BLM21A121SPT | 4822 157 11506 |
| 5210 | BLM21A121SPT | 4822 157 11506 |
| 5300 | 4,7UH/20%) | 4822 157 10333 |
| 5302 | BLM21A601SPT | 4822 157 71206 |
| 5306 | BLM21A601SPT | 4822 157 71206 |
| 5308 | 10UH 10% | 4822 157 71593 |
| 5310 | BLM21A121SPT | 4822 157 11506 |
| 5312 | BLM21A121SPT | 4822 157 11506 |
| 5314 | BLM21A121SPT | 4822 157 11506 |
| 5316 | BLM21A121SPT | 4822 157 11506 |
| 5318 | BLM21A121SPT | 4822 157 11506 |
| 5320 | BLM21A121SPT | 4822 157 11506 |
| 5510 | BLM21A601SPT | 4822 157 71206 |
| 5511 | BLM21A601SPT | 4822 157 71206 |
| 5600 | BLM21A601SPT | 4822 157 71206 |
| 5602 | BLM21A601SPT | 4822 157 71206 |
| 5604 | BLM21A601SPT | 4822 157 71206 |
| 5608 | BLM21A601SPT | 4822 157 71206 |
| 5610 | BLM21A601SPT | 4822 157 71206 |
| 5612 | BLM21A601SPT | 4822 157 71206 |
| 5614 | BLM21A601SPT | 4822 157 71206 |
| 5616 | BLM21A601SPT | 4822 157 71206 |
| 5618 | 1UH/20%) | 4822 157 11258 |
| 5620 | 6,8UH 20% 7X7X3,2 | 4822 157 11789 |
| 5622 | 1UH/20%) | 4822 157 11258 |
| 5624 | BLM21A601SPT | 4822 157 71206 |
| 5626 | BLM21A601SPT | 4822 157 71206 |
| 5628 | BLM21A601SPT | 4822 157 71206 |
| 5630 | 4,7UH/20%) | 4822 157 10333 |
| 5634 | 1UH/20%) | 4822 157 11258 |
| 5636 | 1UH/20%) | 4822 157 11258 |
| 5638 | 4,7UH/20%) | 4822 157 10333 |
| 5640 | BLM21A121SPT | 4822 157 11506 |
| 5642 | 1UH/20%) | 4822 157 11258 |
| 5644 | BLM21A121SPT | 4822 157 11506 |
| 5646 | 1UH/20%) | 4822 157 11258 |
| 5648 | BLM21A601SPT | 4822 157 71206 |
| 5650 | BLM21A601SPT | 4822 157 71206 |
| 5703 | BLM21A601SPT | 4822 157 71206 |
| 5705 | BLM21A601SPT | 4822 157 71206 |
| 5707 | BLM21A601SPT | 4822 157 71206 |
| 5800 | BLM21A601SPT | 4822 157 71206 |
| 5806 | BLM21A601SPT | 4822 157 71206 |
| 5808 | BLM21A601SPT | 4822 157 71206 |
| 5812 | BLM21A601SPT | 4822 157 71206 |
| 5814 | BLM21A601SPT | 4822 157 71206 |
| 5900 | BLM21A601SPT | 4822 157 71206 |
| 5908 | BLM21A601SPT | 4822 157 71206 |
| 5912 | 4,7UH/20%) | 4822 157 10333 |
| 5914 | BLM21A601SPT | 4822 157 71206 |
| 5916 | BLM21A601SPT | 4822 157 71206 |
| 5918 | BLM21A601SPT | 4822 157 71206 |
| 5920 | BLM21A601SPT | 4822 157 71206 |
| 5922 | BLM21A601SPT | 4822 157 71206 |
| 5924 | BLM21A601SPT | 4822 157 71206 |
| 5926 | BLM21A601SPT | 4822 157 71206 |
| 5928 | BLM21A601SPT | 4822 157 71206 |
| 5930 | BLM21A601SPT | 4822 157 71206 |
| 5932 | BLM21A601SPT | 4822 157 71206 |
| 5934 | 4,7UH/20%) | 4822 157 10333 |
| 5936 | BLM21A601SPT | 4822 157 71206 |
| 5938 | BLM21A601SPT | 4822 157 71206 |
| 5940 | BLM21A601SPT | 4822 157 71206 |
| 5942 | BLM21A601SPT | 4822 157 71206 |
| 5944 | BLM21A601SPT | 4822 157 71206 |
| 5946 | BLM21A601SPT | 4822 157 71206 |
| 5948 | 4,7UH/20%) | 4822 157 10333 |

| | | |
|---|---|---|
| 5950 | BLM21A601SPT | 4822 157 71206 |
| 5952 | BLM21A601SPT | 4822 157 71206 |
| 5954 | BLM21A601SPT | 4822 157 71206 |
| 5955 | EMI 100MHZ 550R R | 2422 549 44222 |
| 5956 | BLM21A601SPT | 4822 157 71206 |
| 5959 | BLM21A601SPT | 4822 157 71206 |
| 5967 | BLM21A601SPT | 4822 157 71206 |
| 5969 | BLM21A601SPT | 4822 157 71206 |
| 5970 | BLM21A601SPT | 4822 157 71206 |

**Diodes**

| | | |
|---|---|---|
| 6000 | BZX284-C33 | 4822 130 11027 |
| 6002 | BZX284-C33 | 4822 130 11027 |
| 6004 | BZX284-C33 | 4822 130 11027 |
| 6006 | BZX284-C33 | 4822 130 11027 |
| 6008 | BZX284-C33 | 4822 130 11027 |
| 6010 | BZX284-C33 | 4822 130 11027 |
| 6012 | BAS216 | 9340 255 30135 |
| 6014 | BAS216 | 9340 255 30135 |
| 6016 | BZX284-C6V8 | 4822 130 10852 |
| 6018 | BZX284-C6V8 | 4822 130 10852 |
| 6020 | BZX284-C6V8 | 4822 130 10852 |
| 6022 | BZX284-C6V8 | 4822 130 10852 |
| 6024 | BZX284-C6V8 | 4822 130 10852 |
| 6026 | MA701A | 4822 130 81125 |
| 6100 | TLMG3100 | 9322 085 77685 |
| 6300 | BZX284-C33 | 4822 130 11027 |
| 6302 | BZX284-C33 | 4822 130 11027 |
| 6304 | BZX284-C33 | 4822 130 11027 |
| 6306 | BZX284-C33 | 4822 130 11027 |
| 6308 | BZX284-C33 | 4822 130 11027 |
| 6310 | BZX284-C33 | 4822 130 11027 |
| 6312 | BZX284-C33 | 4822 130 11027 |
| 6314 | BZX284-C33 | 4822 130 11027 |
| 6316 | BZX284-C33 | 4822 130 11027 |
| 6318 | BZX284-C33 | 4822 130 11027 |
| 6320 | BZX284-C33 | 4822 130 11027 |
| 6322 | BZX284-C33 | 4822 130 11027 |
| 6402 | TLMG3100 | 9322 085 77685 |
| 6403 | TLMG3100 | 9322 085 77685 |
| 6600 | BAT254 | 4822 130 10654 |
| 6602 | MA701A | 4822 130 81125 |
| 6700 | BZX284-C6V8 | 4822 130 10852 |
| 6702 | BZX284-C6V8 | 4822 130 10852 |
| 6704 | BZX284-C6V8 | 4822 130 10852 |
| 6706 | BZX284-C6V8 | 4822 130 10852 |
| 6800 | BZX284-C6V8 | 4822 130 10852 |
| 6802 | BZX284-C33 | 4822 130 11027 |
| 6804 | BZX284-C33 | 4822 130 11027 |
| 6806 | BZX284-C33 | 4822 130 11027 |
| 6808 | BZX284-C33 | 4822 130 11027 |
| 6810 | BZX284-C33 | 4822 130 11027 |
| 6812 | BZX284-C33 | 4822 130 11027 |
| 6814 | BZX284-C33 | 4822 130 11027 |
| 6816 | BZX284-C33 | 4822 130 11027 |
| 6817 | BZX284-C33 | 4822 130 11027 |

**Transistors & IC's**

| | | |
|---|---|---|
| 7000 | IC AD8183ARU | 9322 165 01668 |
| 7002 | BC847C | 5322 130 42755 |
| 7004 | BC846B | 5322 130 60159 |
| 7006 | BC846B | 5322 130 60159 |
| 7008 | BC847C | 5322 130 42755 |
| 7010 | 74LVC126AD | 9352 411 00118 |
| 7014 | BC857C | 5322 130 42756 |
| 7016 | BC847C | 5322 130 42755 |
| 7022 | PC74HCT4538T | 5322 209 11598 |
| 7024 | BC846B | 5322 130 60159 |
| 7030 | ST24FC21M1 | 9322 149 41668 |
| 7034 | IC LT1611CS5 | 9322 160 19685 |
| 7102 | 48MHZ 35P FXO-31 R | 4822 242 10814 |
| 7108 | PDIUSBH11AD | 9352 589 10118 |
| 7116 | LD1117D33 | 9322 116 74668 |
| 7200 | LD1117D33 | 9322 116 74668 |
| 7201 | LD1117D33 | 9322 116 74668 |
| 7202 | IC AD9886KS-140 | 9322 173 89671 |
| 7300 | LD1117D33 | 9322 116 74668 |
| 7304 | IC SAA7118E/V1 | 9352 673 95518 |
| 7400 | IC PW166-10TK | 9322 174 22671 |
| 7501 | ST24E16M6 | 4822 209 16954 |
| 7503 | DS1708SESA | 9322 149 40668 |
| 7510 | prog.AM29LV800B-6231 | 3122 437 12400 |
| 7510 | prog.AM29LV800B-7181 | 3122 437 12530 |
| 7511 | CY62127VLL-70ZI | 9322 154 50668 |
| 7600 | 74LVC126AD | 9352 411 00118 |
| 7602 | IC ICS307M-02T | 9322 165 19668 |
| 7616 | BSH111 | 9340 560 36235 |
| 7618 | BSH111 | 9340 560 36235 |
| 7620 | FS6377-01 | 9322 137 99668 |
| 7622 | BSH111 | 9340 560 36235 |
| 7626 | LT1507CS8 | 4822 209 17094 |
| 7628 | LD1117D33 | 9322 116 74668 |
| 7630 | LD1117D33 | 9322 116 74668 |
| 7708 | BC847C | 5322 130 42755 |
| 7711 | BC847C | 5322 130 42755 |
| 7712 | BC847C | 5322 130 42755 |
| 7715 | IC 74LVC07AD | 9352 654 81118 |
| 7719 | CY6264-70SNC | 4822 209 16439 |
| 7723 | 74HCT86N | 5322 209 11473 |
| 7727 | PROG. S87C654-4B44 | 3122 437 12410 |
| 7731 | BC846B | 5322 130 60159 |
| 7733 | BC847C | 5322 130 42755 |
| 7737 | SN74HCT573DW | 5322 209 31276 |
| 7802 | TDA7433D | 9322 149 66668 |
| 7804 | TDA7056AT | 9352 609 37118 |
| 7806 | BSH111 | 9340 560 36235 |
| 7808 | BSH111 | 9340 560 36235 |
| 7902 | IC LD1117D | 9322 157 39668 |
| 7904 | PC74HCU04T | 5322 209 11517 |
| 7906 | PCF8574TS/F3 | 4822 209 13252 |
| 7908 | BCP51 | 5322 130 62639 |
| 7910 | IC LD1117D | 9322 157 39668 |
| 7912 | IC LD1117D | 9322 157 39668 |
| 7914 | TDA8444T/N4 | 5322 209 90559 |
| 7916 | HEF4013BT | 5322 209 14477 |
| 7918 | IC LD1117D | 9322 157 39668 |
| 7920 | BC846B | 5322 130 60159 |
| 7922 | IC HEF4040BT | 9333 728 50653 |
| 7946 | BC847C | 5322 130 42755 |

## Drive Board

**Connectors**

| | | |
|---|---|---|
| 1101 | SSB board BTB | 2422 025 17278 |
| 1200 | XTL 24M576 12P | 2422 543 01115 |
| 1671 | LCD 36 pins | 2422 025 16967 |
| 1772 | LCD 36 pins | 2422 025 16967 |
| 1873 | LCD 36 pins | 2422 025 16967 |

**Capacitors**

| | | |
|---|---|---|
| 2100 | 1206 6V3 10U PM10 | 2020 552 96672 |
| 2101 | 1210 16V 10U PM10 | 2020 552 96675 |
| 2103 | 0603 6V3 1U PM10 | 2020 552 96673 |
| 2200 | 0603 50V 100NP80M | 2238 586 59812 |
| 2201 | 0603 50V 100NP80M | 2238 586 59812 |
| 2202 | 0603 50V 100NP80M | 2238 586 59812 |
| 2203 | 0603 50V 100NP80M | 2238 586 59812 |
| 2204 | 0603 50V 100NP80M | 2238 586 59812 |
| 2205 | 0603 50V 100NP80M | 2238 586 59812 |
| 2206 | 0603 50V 100NP80M | 2238 586 59812 |
| 2207 | 22PF 5%NP0 50V | 4822 122 33761 |
| 2208 | 22PF 5%NP0 50V | 4822 122 33761 |
| 2209 | 0603 50V 100NP80M | 2238 586 59812 |
| 2212 | 0603 50V 100NP80M | 2238 586 59812 |
| 2213 | 0603 50V 100NP80M | 2238 586 59812 |
| 2214 | 0603 50V 100NP80M | 2238 586 59812 |
| 2215 | 0603 50V 100NP80M | 2238 586 59812 |
| 2300 | 0603 50V 100NP80M | 2238 586 59812 |
| 2301 | 0603 50V 100NP80M | 2238 586 59812 |
| 2302 | 0603 50V 100NP80M | 2238 586 59812 |
| 2303 | 0603 50V 100NP80M | 2238 586 59812 |
| 2304 | 0603 50V 100NP80M | 2238 586 59812 |
| 2305 | 0603 50V 100NP80M | 2238 586 59812 |
| 2306 | 0603 50V 100NP80M | 2238 586 59812 |
| 2307 | 0603 6V3 1U PM10 | 2020 552 96673 |
| 2308 | 0603 50V 100NP80M | 2238 586 59812 |
| 2309 | 0603 50V 100NP80M | 2238 586 59812 |
| 2310 | 0603 50V 100NP80M | 2238 586 59812 |
| 2311 | 0603 50V 100NP80M | 2238 586 59812 |
| 2312 | 0603 6V3 1U PM10 | 2020 552 96673 |
| 2400 | 1206 16V 1U PM10 | 2020 552 95812 |
| 2401 | 0603 50V 100NP80M | 2238 586 59812 |
| 2402 | 1206 16V 1U PM10 | 2020 552 95812 |
| 2403 | 1206 16V 1U PM10 | 2020 552 95812 |
| 2404 | 0603 NP0 50V 100P | 2020 552 94427 |
| 2407 | 1206 16V 1U PM10 | 2020 552 95812 |
| 2408 | 0603 6V3 1U PM10 | 2020 552 96673 |
| 2409 | 0603 50V 100NP80M | 2238 586 59812 |
| 2410 | 1206 6V3 10U PM10 | 2020 552 96672 |
| 2411 | 1206 6V3 10U PM10 | 2020 552 96672 |
| 2414 | 0603 50V 100NP80M | 2238 586 59812 |
| 2415 | 0603 50V 100NP80M | 2238 586 59812 |
| 2416 | 0603 50V 100NP80M | 2238 586 59812 |
| 2417 | 0603 50V 100NP80M | 2238 586 59812 |
| 2418 | 0603 50V 100NP80M | 2238 586 59812 |
| 2419 | 0603 50V 100NP80M | 2238 586 59812 |
| 2420 | 0603 50V 100NP80M | 2238 586 59812 |
| 2500 | 0603 50V 100NP80M | 2238 586 59812 |
| 2501 | 0603 50V 100NP80M | 2238 586 59812 |
| 2502 | 0603 50V 100NP80M | 2238 586 59812 |
| 2503 | 0603 50V 100NP80M | 2238 586 59812 |
| 2504 | 0603 50V 100NP80M | 2238 586 59812 |
| 2505 | 0603 50V 100NP80M | 2238 586 59812 |
| 2506 | 1210 16V 10U PM10 | 2020 552 96675 |
| 2507 | 1206 6V3 10U PM10 | 2020 552 96672 |
| 2508 | 0603 50V 100NP80M | 2238 586 59812 |
| 2509 | 0603 50V 100NP80M | 2238 586 59812 |
| 2510 | 0603 50V 100NP80M | 2238 586 59812 |
| 2511 | 0603 50V 100NP80M | 2238 586 59812 |
| 2512 | 1210 16V 10U PM10 | 2020 552 96675 |
| 2517 | 0603 50V 100NP80M | 2238 586 59812 |
| 2518 | 0603 50V 100NP80M | 2238 586 59812 |
| 2519 | 0603 50V 100NP80M | 2238 586 59812 |
| 2526 | 0603 50V 100NP80M | 2238 586 59812 |

| | | |
|---|---|---|
| 2527 | 0603 6V3 1U PM10 | 2020 552 96673 |
| 2528 | 0603 6V3 1U PM10 | 2020 552 96673 |
| 2529 | 0603 50V 100NP80M | 2238 586 59812 |
| 2530 | 0603 50V 100NP80M | 2238 586 59812 |
| 2531 | 0603 6V3 1U PM10 | 2020 552 96673 |
| 2600 | 0603 50V 100NP80M | 2238 586 59812 |
| 2601 | 0603 50V 100NP80M | 2238 586 59812 |
| 2602 | 0603 50V 100NP80M | 2238 586 59812 |
| 2603 | 0603 50V 100NP80M | 2238 586 59812 |
| 2604 | 0603 50V 100NP80M | 2238 586 59812 |
| 2605 | 0603 50V 100NP80M | 2238 586 59812 |
| 2606 | 1210 16V 10U PM10 | 2020 552 96675 |
| 2607 | 1206 6V3 10U PM10 | 2020 552 96672 |
| 2608 | 0603 50V 100NP80M | 2238 586 59812 |
| 2609 | 0603 50V 100NP80M | 2238 586 59812 |
| 2610 | 0603 50V 100NP80M | 2238 586 59812 |
| 2611 | 0603 50V 100NP80M | 2238 586 59812 |
| 2612 | 1210 16V 10U PM10 | 2020 552 96675 |
| 2617 | 0603 50V 100NP80M | 2238 586 59812 |
| 2618 | 0603 50V 100NP80M | 2238 586 59812 |
| 2619 | 0603 50V 100NP80M | 2238 586 59812 |
| 2626 | 0603 50V 100NP80M | 2238 586 59812 |
| 2627 | 0603 6V3 1U PM10 | 2020 552 96673 |
| 2628 | 0603 6V3 1U PM10 | 2020 552 96673 |
| 2629 | 0603 50V 100NP80M | 2238 586 59812 |
| 2630 | 0603 50V 100NP80M | 2238 586 59812 |
| 2631 | 0603 6V3 1U PM10 | 2020 552 96673 |
| 2632 | 0603 6V3 1U PM10 | 2020 552 96673 |
| 2700 | 0603 50V 100NP80M | 2238 586 59812 |
| 2701 | 0603 50V 100NP80M | 2238 586 59812 |
| 2702 | 0603 50V 100NP80M | 2238 586 59812 |
| 2703 | 0603 50V 100NP80M | 2238 586 59812 |
| 2704 | 0603 50V 100NP80M | 2238 586 59812 |
| 2705 | 0603 50V 100NP80M | 2238 586 59812 |
| 2706 | 1210 16V 10U PM10 | 2020 552 96675 |
| 2707 | 1206 6V3 10U PM10 | 2020 552 96672 |
| 2708 | 0603 50V 100NP80M | 2238 586 59812 |
| 2709 | 0603 50V 100NP80M | 2238 586 59812 |
| 2710 | 0603 50V 100NP80M | 2238 586 59812 |
| 2711 | 0603 50V 100NP80M | 2238 586 59812 |
| 2712 | 1210 16V 10U PM10 | 2020 552 96675 |
| 2717 | 0603 50V 100NP80M | 2238 586 59812 |
| 2718 | 0603 50V 100NP80M | 2238 586 59812 |
| 2719 | 0603 50V 100NP80M | 2238 586 59812 |
| 2726 | 0603 50V 100NP80M | 2238 586 59812 |
| 2727 | 0603 6V3 1U PM10 | 2020 552 96673 |
| 2728 | 0603 6V3 1U PM10 | 2020 552 96673 |
| 2729 | 0603 50V 100NP80M | 2238 586 59812 |
| 2730 | 0603 50V 100NP80M | 2238 586 59812 |
| 2731 | 0603 6V3 1U PM10 | 2020 552 96673 |
| 2732 | 0603 6V3 1U PM10 | 2020 552 96673 |

**Resistors**

| | | |
|---|---|---|
| 3101 | 10K00 5% 0,062W | 4822 051 30103 |
| 3102 | 10K00 5% 0,062W | 4822 051 30103 |
| 3200 | 1K00 5% 0,062W | 4822 051 30102 |
| 3201 | 4K70 5% 0,062W | 4822 051 30472 |
| 3202 | 4K70 5% 0,062W | 4822 051 30472 |
| 3203 | 4K70 5% 0,062W | 4822 051 30472 |
| 3204 | 4K70 5% 0,062W | 4822 051 30472 |
| 3205 | NETW 4X4K7 PM5 | 2350 035 10472 |
| 3206 | 100R00 5% 0,062W | 4822 051 30101 |
| 3207 | 10K00 5% 0,062W | 4822 051 30103 |
| 3210 | NETW 4X4K7 PM6 | 2350 035 10472 |
| 3212 | NETW 4X10K | 2350 035 10103 |
| 3216 | 1K00 5% 0,062W | 4822 051 30102 |
| 3219 | 1K50 5% 0,062W | 4822 051 30152 |
| 3220 | 1K00 5% 0,062W | 4822 051 30102 |
| 3221 | 820R 5% 0,62W | 4822 117 12968 |
| 3222 | NETW 4X10K | 2350 035 10103 |
| 3225 | 100R00 5% 0,062W | 4822 051 30101 |
| 3228 | NETW 4X10K | 2350 035 10103 |
| 3234 | 1K00 5% 0,062W | 4822 051 30102 |
| 3236 | 47R00 5% 0,062W | 4822 051 30479 |
| 3240 | 10K00 5% 0,062W | 4822 051 30103 |
| 3241 | 10K00 5% 0,062W | 4822 051 30103 |
| 3242 | 100R00 5% 0,062W | 4822 051 30101 |
| 3243 | 100R00 5% 0,062W | 4822 051 30101 |
| 3248 | 1K00 5% 0,062W | 4822 051 30102 |
| 3250 | 47R00 5% 0,062W | 4822 051 30479 |
| 3251 | 1K00 5% 0,062W | 4822 051 30102 |
| 3252 | 100R00 5% 0,062W | 4822 051 30101 |
| 3253 | 100R00 5% 0,062W | 4822 051 30101 |
| 3254 | 100R00 5% 0,062W | 4822 051 30101 |
| 3255 | 10K00 5% 0,062W | 4822 051 30103 |
| 3256 | 10K00 5% 0,062W | 4822 051 30103 |
| 3257 | 3K30 5% 0,062W | 4822 051 30332 |
| 3260 | 47R00 5% 0,062W | 4822 051 30479 |
| 3261 | 47R00 5% 0,062W | 4822 051 30479 |
| 3262 | 47R00 5% 0,062W | 4822 051 30479 |
| 3263 | 10K00 5% 0,062W | 4822 051 30103 |
| 3264 | 10K00 5% 0,062W | 4822 051 30103 |
| 3267 | 1K00 5% 0,062W | 4822 051 30102 |
| 3268 | 1K00 5% 0,062W | 4822 051 30102 |
| 3300 | NETW 4X47R | 2350 035 10479 |
| 3302 | NETW 4X47R | 2350 035 10479 |
| 3304 | 47R00 5% 0,062W | 4822 051 30479 |
| 3309 | 47R00 5% 0,062W | 4822 051 30479 |
| 3310 | 47R00 5% 0,062W | 4822 051 30479 |
| 3311 | 47R00 5% 0,062W | 4822 051 30479 |
| 3315 | NETW 4X47R | 2350 035 10479 |
| 3319 | NETW 4X47R | 2350 035 10479 |
| 3320 | 47R00 5% 0,062W | 4822 051 30479 |
| 3321 | 47R00 5% 0,062W | 4822 051 30479 |
| 3325 | NETW 4X47R | 2350 035 10479 |
| 3329 | NETW 4X47R | 2350 035 10479 |
| 3330 | NETW 4X47R | 2350 035 10479 |
| 3332 | NETW 4X47R | 2350 035 10479 |
| 3340 | 47R00 5% 0,062W | 4822 051 30479 |
| 3341 | NETW 4X47R | 2350 035 10479 |
| 3342 | 47R00 5% 0,062W | 4822 051 30479 |
| 3343 | NETW 4X47R | 2350 035 10479 |
| 3347 | 47R00 5% 0,062W | 4822 051 30479 |
| 3348 | 47R00 5% 0,062W | 4822 051 30479 |
| 3349 | NETW 4X47R | 2350 035 10479 |
| 3354 | NETW 4X47R | 2350 035 10479 |
| 3357 | 47R00 5% 0,062W | 4822 051 30479 |
| 3358 | NETW 4X47R | 2350 035 10479 |
| 3362 | NETW 4X47R | 2350 035 10479 |
| 3363 | 47R00 5% 0,062W | 4822 051 30479 |
| 3367 | 47R00 5% 0,062W | 4822 051 30479 |
| 3368 | NETW 4X47R | 2350 035 10479 |
| 3370 | 4K70 5% 0,062W | 4822 051 30472 |
| 3375 | 47R00 5% 0,062W | 4822 051 30479 |
| 3376 | 4K70 5% 0,062W | 4822 051 30472 |
| 3377 | 4K70 5% 0,062W | 4822 051 30472 |
| 3378 | 4K70 5% 0,062W | 4822 051 30472 |
| 3379 | 1R 5% 0,062W 0603 | 4822 117 12917 |
| 3380 | 1R 5% 0,062W 0603 | 4822 117 12917 |
| 3381 | 1R 5% 0,062W 0603 | 4822 117 12917 |
| 3400 | 18K00 5% 0,062W | 4822 051 30183 |
| 3401 | 2K20 5% 0,062W | 4822 051 30222 |
| 3402 | 3K30 5% 0,062W | 4822 051 30332 |
| 3403 | 3K30 5% 0,062W | 4822 051 30332 |
| 3404 | 22R 5% 0,062W | 4822 117 12139 |
| 3405 | 22R 5% 0,062W | 4822 117 12139 |
| 3406 | 1K00 5% 0,062W | 4822 051 30102 |
| 3407 | 100R00 5% 0,062W | 4822 051 30101 |
| 3408 | 100R00 5% 0,062W | 4822 051 30101 |
| 3409 | 3K9 5% 0.063W 0603 | 4822 051 30392 |
| 3410 | 330R00 5% 0,062W | 4822 051 30331 |
| 3411 | 2K20 5% 0,062W | 4822 051 30222 |
| 3412 | 150R00 5% 0,062W | 4822 051 30151 |
| 3413 | 1K00 5% 0,062W | 4822 051 30102 |
| 3414 | 2R2 5% 0603 | 4822 117 13613 |
| 3415 | 1K00 5% 0,062W | 4822 051 30102 |
| 3416 | 100R00 5% 0,062W | 4822 051 30101 |
| 3417 | 100R00 5% 0,062W | 4822 051 30101 |
| 3418 | 330R00 5% 0,062W | 4822 051 30331 |
| 3420 | NETW 4X 27K | 2350 035 10273 |
| 3423 | NETW 4X3K3 PM5 | 2350 035 10332 |
| 3426 | 3K30 5% 0,062W | 4822 051 30332 |
| 3427 | NETW 4X10K | 2350 035 10103 |
| 3430 | NETW 4X3K3 PM6 | 2350 035 10332 |
| 3438 | NETW 4X10K | 2350 035 10103 |
| 3442 | 1K00 5% 0,062W | 4822 051 30102 |
| 3443 | 6K80 5% 0,062W | 4822 051 30682 |
| 3444 | 4K70 5% 0,062W | 4822 051 30472 |
| 3445 | 4K70 5% 0,062W | 4822 051 30472 |
| 3446 | 4K70 5% 0,062W | 4822 051 30472 |
| 3447 | 3K30 5% 0,062W | 4822 051 30332 |
| 3448 | 680R 5% 0,062W | 4822 051 30681 |
| 3501 | 47K 1% 0.063W 0603 | 4822 117 12925 |
| 3506 | 1K00 5% 0,062W | 4822 051 30102 |
| 3507 | 2K20 5% 0,062W | 4822 051 30222 |
| 3509 | 100R00 5% 0,062W | 4822 051 30101 |
| 3510 | R2 5% 0603 | 4822 117 13613 |
| 3511 | 100R00 5% 0,062W | 4822 051 30101 |
| 3512 | 2R2 5% 0603 | 4822 117 13613 |
| 3513 | 2K20 5% 0,062W | 4822 051 30222 |
| 3514 | 22R 5% 0,062W | 4822 117 12139 |
| 3515 | 1K00 5% 0,062W | 4822 051 30102 |
| 3516 | 22R 5% 0,062W | 4822 117 12139 |
| 3517 | 1K00 5% 0,062W | 4822 051 30102 |
| 3601 | 47K 1% 0.063W 0603 | 4822 117 12925 |
| 3606 | 1K00 5% 0,062W | 4822 051 30102 |
| 3607 | 2K20 5% 0,062W | 4822 051 30222 |
| 3609 | 100R00 5% 0,062W | 4822 051 30101 |
| 3610 | 2R2 5% 0603 | 4822 117 13613 |
| 3611 | 100R00 5% 0,062W | 4822 051 30101 |
| 3612 | 2R2 5% 0603 | 4822 117 13613 |
| 3613 | 2K20 5% 0,062W | 4822 051 30222 |
| 3614 | 22R 5% 0,062W | 4822 117 12139 |
| 3615 | 1K00 5% 0,062W | 4822 051 30102 |
| 3616 | 22R 5% 0,062W | 4822 117 12139 |
| 3617 | 1K00 5% 0,062W | 4822 051 30102 |
| 3701 | 47K 1% 0.063W 0603 | 4822 117 12925 |
| 3706 | 1K00 5% 0,062W | 4822 051 30102 |
| 3707 | 2K20 5% 0,062W | 4822 051 30222 |
| 3709 | 100R00 5% 0,062W | 4822 051 30101 |
| 3710 | 2R2 5% 0603 | 4822 117 13613 |
| 3711 | 100R00 5% 0,062W | 4822 051 30101 |
| 3712 | 2R2 5% 0603 | 4822 117 13613 |

| | | |
|---|---|---|
| 3713 | 2K20 5% 0,062W | 4822 051 30222 |
| 3714 | 22R 5% 0,062W | 4822 117 12139 |
| 3715 | 1K00 5% 0,062W | 4822 051 30102 |
| 3716 | 22R 5% 0,062W | 4822 117 12139 |
| 3717 | 1K00 5% 0,062W | 4822 051 30102 |

**Coils**

| | | |
|---|---|---|
| 5100 | -4R7M (4,7UH/20%) | 4822 157 10333 |
| 5101 | -4R7M (4,7UH/20%) | 4822 157 10333 |
| 5200 | BLM21A601SPT | 4822 157 71206 |
| 5201 | BLM21A601SPT | 4822 157 71206 |
| 5202 | BLM21A601SPT | 4822 157 71206 |
| 5203 | BLM21A601SPT | 4822 157 71206 |
| 5204 | BLM21A601SPT | 4822 157 71206 |
| 5205 | BLM21A601SPT | 4822 157 71206 |
| 5206 | BLM21A601SPT | 4822 157 71206 |
| 5207 | BLM21A601SPT | 4822 157 71206 |
| 5208 | BLM21A601SPT | 4822 157 71206 |
| 5300 | BLM21A601SPT | 4822 157 71206 |
| 5301 | BLM21A601SPT | 4822 157 71206 |
| 5302 | BLM21A601SPT | 4822 157 71206 |
| 5400 | BLM21A601SPT | 4822 157 71206 |
| 5401 | BLM21A601SPT | 4822 157 71206 |
| 5402 | BLM21A601SPT | 4822 157 71206 |
| 5403 | BLM21A601SPT | 4822 157 71206 |
| 5500 | BLM21A601SPT | 4822 157 71206 |
| 5501 | BLM21A601SPT | 4822 157 71206 |
| 5502 | BLM21A601SPT | 4822 157 71206 |
| 5503 | BLM21A601SPT | 4822 157 71206 |
| 5504 | BLM21A601SPT | 4822 157 71206 |
| 5507 | BLM21A601SPT | 4822 157 71206 |
| 5508 | BLM21A601SPT | 4822 157 71206 |
| 5509 | BLM21A601SPT | 4822 157 71206 |
| 5600 | BLM21A601SPT | 4822 157 71206 |
| 5601 | BLM21A601SPT | 4822 157 71206 |
| 5602 | BLM21A601SPT | 4822 157 71206 |
| 5603 | BLM21A601SPT | 4822 157 71206 |
| 5604 | BLM21A601SPT | 4822 157 71206 |
| 5607 | BLM21A601SPT | 4822 157 71206 |
| 5608 | BLM21A601SPT | 4822 157 71206 |
| 5609 | BLM21A601SPT | 4822 157 71206 |
| 5700 | BLM21A601SPT | 4822 157 71206 |
| 5701 | BLM21A601SPT | 4822 157 71206 |
| 5702 | BLM21A601SPT | 4822 157 71206 |
| 5703 | BLM21A601SPT | 4822 157 71206 |
| 5704 | BLM21A601SPT | 4822 157 71206 |
| 5707 | BLM21A601SPT | 4822 157 71206 |
| 5708 | BLM21A601SPT | 4822 157 71206 |
| 5709 | BLM21A601SPT | 4822 157 71206 |

**Diodes**

| | | |
|---|---|---|
| 6200 | BAT54 | 4822 130 80622 |
| 6201 | BZX284-C2V7 | 4822 130 10756 |
| 6401 | BZX84-A12 (PHSE) R | 9340 117 70215 |

**Transistors & IC's**

| | | |
|---|---|---|
| 7200 | IC DS1815R-10 | 9322 158 94685 |
| 7201 | BSH111 | 9340 560 36235 |
| 7202 | BSH111 | 9340 560 36235 |
| 7203 | IC 74LVC573AD | 9352 190 00118 |
| 7206 | TMP91CW12AF-9999 | 9322 170 75671 |
| 7208 | IC SM 74AHCT1G08GW | 9352 627 54115 |
| 7209 | IC SM 74AHCT1G08GW | 9352 627 54115 |
| 7210 | 74LVC04AD | 4822 209 16399 |
| 7211 | DTA124EU-W | 4822 130 60854 |
| 7212 | DTC124EU | 4822 130 61553 |
| 7213 | 74LVC86AD | 4822 209 17463 |
| 7300 | IC SM L3E07050K0B | 9322 188 06702 |
| 7400 | BC846B | 5322 130 60159 |
| 7401 | LM358D | 5322 209 82941 |
| 7402 | BCP56 | 5322 130 63033 |
| 7403 | TL431ACD | 4822 209 16406 |
| 7405 | IC M24128-BWMN6 | 9322 152 35668 |
| 7406 | TL431ACD | 4822 209 16406 |
| 7407 | MC78L05ACD | 4822 209 33411 |
| 7408 | TDA8444T/N4 | 5322 209 90559 |
| 7410 | IC SM LT1763CS8 | 9322 151 49668 |
| 7411 | BC846B | 5322 130 60159 |
| 7504 | IC SM L3E01040F0A | 9322 184 10671 |
| 7505 | IC SM L3E06070D0A | 9322 174 62671 |
| 7506 | TRA SIG BC847BPN | 9340 425 30115 |
| 7508 | TRA SIG BC847BPN | 9340 425 30115 |
| 7510 | LM358D | 5322 209 82941 |
| 7604 | IC SM L3E01040F0A | 9322 184 10671 |
| 7605 | IC SM L3E06070D0A | 9322 174 62671 |
| 7606 | TRA SIG BC847BPN | 9340 425 30115 |
| 7608 | TRA SIG BC847BPN | 9340 425 30115 |
| 7610 | LM358D | 5322 209 82941 |
| 7704 | IC SM L3E01040F0A | 9322 184 10671 |
| 7705 | IC SM L3E06070D0A | 9322 174 62671 |
| 7706 | TRA SIG BC847BPN | 9340 425 30115 |
| 7708 | TRA SIG BC847BPN | 9340 425 30115 |
| 7710 | LM358D | 5322 209 82941 |

**Test points**

| | | |
|---|---|---|
| 9200 | Test device | 4822 404 60717 |
| 9201 | Test device | 4822 404 60717 |
| 9510 | Test device | 4822 404 60717 |
| 9610 | Test device | 4822 404 60717 |
| 9710 | Test device | 4822 404 60717 |

## Keyboard

**Connectors**

| | | |
|---|---|---|
| 1020 | 15P F 1.00 FFC 0.3 R | 2422 025 16919 |
| 1021 | 4P F 1.00 FFC 0.3 B | 2422 025 16979 |

**Capacitors**

| | | |
|---|---|---|
| 2000 | 100NF 10% 0805 50V | 4822 126 14585 |
| 2001 | 100NF 10% 0805 50V | 4822 126 14585 |

**Resistors**

| | | |
|---|---|---|
| 3000 | 100R00 5% 0,062W | 4822 051 30101 |
| 3001 | 100R00 5% 0,062W | 4822 051 30101 |
| 3002 | 330R00 5% 0,062W | 4822 051 30331 |
| 3005 | 330R00 5% 0,062W | 4822 051 30331 |
| 3006 | 68R 5% 0,063W 0603 | 4822 051 30689 |
| 3007 | 100R00 5% 0,062W | 4822 051 30101 |
| 3008 | 100R00 5% 0,062W | 4822 051 30101 |
| 3009 | 22K00 5% 0,062W | 4822 051 30223 |
| 3010 | 22K00 5% 0,062W | 4822 051 30223 |
| 3011 | 22K00 5% 0,062W | 4822 051 30223 |
| 3012 | 330R00 5% 0,062W | 4822 051 30331 |
| 3013 | 22K00 5% 0,062W | 4822 051 30223 |
| 3014 | 22K00 5% 0,062W | 4822 051 30223 |
| 3015 | 68R 5% 0,063W 0603 | 4822 051 30689 |
| 3016 | 22K00 5% 0,062W | 4822 051 30223 |
| 3017 | 330R00 5% 0,062W | 4822 051 30331 |
| 3018 | 68R 5% 0,063W 0603 | 4822 051 30689 |

**Coils**

| | | |
|---|---|---|
| 5000 | BLM21A601SPT | 4822 157 71206 |
| 5001 | BLM21A601SPT | 4822 157 71206 |

Diodes & LED's

| | | |
|---|---|---|
| 6000 | TLMV3100 | 4822 130 83915 |
| 6001 | TLMV3100 | 4822 130 83915 |
| 6002 | TLMV3100 | 4822 130 83915 |
| 6003 | TLMH3100 | 4822 130 11395 |

**Transistors & IC's**

| | | |
|---|---|---|
| 7000 | DS1621V | 4822 209 16906 |
| 7001 | BC856B | 4822 130 60373 |
| 7003 | BC856B | 4822 130 60373 |
| 7004 | PCF8574T | 5322 209 11578 |
| 7005 | BC856B | 4822 130 60373 |
| 7006 | BC856B | 4822 130 60373 |
| 7007 | BC856B | 4822 130 60373 |
| 7008 | BC856B | 4822 130 60373 |

**Jumpers**

| | | |
|---|---|---|
| 9010 | 0R00 JUMP. (0805) | 4822 051 20008 |
| 9011 | 0R00 JUMP. (0805) | 4822 051 20008 |

## IR-board

**Connectors**

| | | |
|---|---|---|
| 1000 | 4P F 1.00 FFC 0.3 B | 2422 025 16979 |

**Capacitors**

| | | |
|---|---|---|
| 2000 | TANCAP6V3 47U | 2020 004 90266 |

**Resistors**

| | | |
|---|---|---|
| 3000 | 47R00 5% 0,062W | 4822 051 30479 |

**IR-receiver**

| | | |
|---|---|---|
| 7000 | I.R.Receiver TSOP2136 | 3122 438 70920 |